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COMMUNICATIONS.

MICRO-ORGANISMS IN GYNECOLOGICAL PRACTICE.*

BY S. PETERS, M. D.,

Of Cohoes, N. Y.

While it is our purpose to indulge in a few practical thoughts that are more particularly interesting to students of the diseases peculiar to females, it will not be out of place to allude briefly to bacteriology in general, especially as, at the present time, many have not given particular attention to its study, and even to those who have made special studies of micro-organic life, a frequent repetition of the lessons now considered proved cannot be time entirely lost. The importance of the whole range of topics is so great that it is not only our duty to study, but to make every technical term and every established point as familiar as our household words. The magnitude of the great lessons learned only through the microscope must impress all with the paramount importance of possessing and of becoming practically familiar with that wonderful instrument. The teeming myriads, invisible to our ordinary sight, have been for the past ages playing a general havoc with the higher orders of organic life, unseen and unknown; and while we are only just passing the threshold to the great arena before us, we have seen sights and gathered crumbs of the greatest value. We now study puerperal fevers and septicæmias from a far different standpoint, and already is human life far better conserved in these trying ordeals, as well as in others of the long list of zymoses.

The general term, bacteria, the plural of bacterium, includes all classes of micro-organisms. For convenience, they are divided into three classes, according to their different forms: the round or spherical, the long or rod-like, and the spiral or cork-screw shape. The round are called micrococci; the long, bacilli; the spiral, spirilla. These are subdivided, and include a large number of orders or varieties which it is not necessary to name here.

Each infectious or zymotic disease is supposed to be induced by a specific microbe that is capable of producing no other disease; that the specific microbe and the specific disease are inseparable and that the virulence of the disease is in exact ratio to the virulence or vitality of the microbe or its spore or germ.

All microbes must be and are capable of cultivation, so that generation after generation indefinitely can be produced. These cultivations must be, and are capable always of producing the same disease in which they were first found. The essentials of bacteria cultivations are a certain degree of warmth, moisture, oxygen, and a suitable soil or nutriment. The common potato answers admirably for many, perhaps most of such cultivations. This soil was first used by Koch, and has been of the greatest value in the study of bacteriology. Plates of pure gelatine are now much used, or strong solutions kept at a certain degree of warmth, according to the requirements of the particular bacterium.

The multiplication of micro-organisms is

*Read before the 2d District Branch of the New York State Medical Association, June 22, 1886.

either by division, commonly called fission, or the production of spores or germs, called sporification. When multiplied by fission, the cell constituting the microbe shows under the microscope at one point, generally near its centre, a stricture or narrowing, this becoming deeper and deeper until a complete separation takes place, thus forming two separate and perfect individuals; these, after a brief period, again divide, and so on to the rapid production of myriads in a few hours. When the increase is by sporification, two or more pearly or opalescent spots appear in the parent cell; these grow until finally the parent cell disappears. This last process is, I believe, always deferred till fission has been in operation for some time first.

The rapidity with which reproduction goes on is, according to the observations of Cohn, truly marvellous. He has carefully estimated that in three days' time, under favorable circumstances — plenty of food, oxygen, moisture, etc.—one bacterium can produce 15,000,000 of pounds, and in five days produce a bulk of 928,000,000 cubic miles.

This dangerous and fatal production would be speedily brought about were there not opposing actions or counter-actions. For instance, extremes of temperature is a common and easy method of destroying bacteria. The temperature of boiling water is fatal to nearly all of the pathogenic microbes. The temperature reached in fever is often sufficient for their destruction The bacillus of anthrax cannot survive a temperature of 106° F. The relapsing fever spirilla cannot live when the thermometer reaches 104° F. On the other hand, the bacillus tuberculosis thrives at a temperature of 107° or 108° F. The tyrothrix bacillus, found often in certain kinds of cheese, will endure a temperature of 212° F. Spores endure a far greater range of temperature than their producing bacteria, some resisting a heat of 240° F., others a degree of cold far below zero. From some of the above-related facts it will be perceived that fever is not always undesirable.

Another efficient agency in the destruction of bacteria is the power or quality, whichever you may call it, of the lymph cells, wherever these are located: in the blood, in lymphatic glands, or on the surface of a suppurating sore. Whether it is a mutual affinity of these bodies for each other, or a battle for supremacy, the lymph cell imbibes the bacterium entire, where the latter is soon dissolved or lost. A single blood cell will thus receive several or many, but how long it can continue this action without injury to itself is not known.

Prof. Metschnikoff, I think, was the first to make these interesting and highly important observations. Other agencies are capable of destroying micro-organisms, such as the several chemical germicides. The comma bacillus, as observed by Koch, its discoverer, is rapidly destroyed by an acid medium, others succumb to alkalies, and all to a few substances, one of which, and at present, perhaps, the most popular, is mercuric bichloride.

The gynecologist has to deal principally with those particular organizations which produce sepsis or poisoning of the tissues. Now while the particular microbes of many diseases have been distinguished and accurately described, separated from others, cultivated, and found to reproduce in susceptible animals the same disease invariably, the investigations of experts in puerperal fever or puerperal septicæmia, as some prefer to call it, have not been so successful. It is true that single differentiated microbes have been isolated and even cultivated, and found to produce pathological states closely analogous to those found in the human body dead of puerperal fever; yet the evidence seems to point out a fact that more than one species of bacteria is capable of doing the same thing. Two of these have been named: one the *micrococcus septicus*, the other the *bacillus septicus*.

Dr. Noeggerath has very recently described in the *American Journal of Obstetrics* a coccus which has not been hitherto noted that I am aware of. In his own language, "its length, although somewhat varying in size according to the medium on which it is raised, is between a large coccus and a bacillus. It is a short rod, separated in the middle by a slight constriction just visible with a very high power, which gives it the appearance of two oblong cocci joined closely together. Sometimes two or three rods are joined in one. It is about one-quarter larger than the bacterium termo." This was found in a puerperal fever case of his which was very protracted and obstinate, and seemed to expend its poisonous action upon the tissue of the uterus without deposits in any remote organs. Besides this, Dr. Fraenkel has lately described a similar bacillus, though not identical.

It is probable that still other septic organisms have to do with the various operations upon and diseases of the female generative organs.

It is thus acknowledged that far too little

is yet known in regard to the number, natural history, etc., of this class of pathogenic bacteria, and that careful research is yet essential before we reach that perfection which has been attained in many other diseases. Much, however, very much, has been gained, as may well be seen by the statistics of several of our lying-in hospitals. At the Preston Retreat Hospital there were but two deaths in 756 cases of labor. (Goodell.) The Lying-in Institute in Dresden lost only 1.8 per cent. from metria, and only one case of septic disease in 570 births. (Winckel.) Previous to antiseptic precautions (in 1872), the death-rate was over 5 per cent. The mortality was reduced in Maternity Hospital in Copenhagen from 1 in 37 to 1 in 87. In the Emergency Hospital in New York the deaths are only two per cent. These figures are taken from the last edition of Dr. Lusk's work on obstetrics.

We may now ask the question, How do pathogenic bacteria produce disease? Some affirm that by the rapid increase in numbers simply the normal operations of the economy are so interfered with that disease is the result. In support of this, it is well known that blood-vessels are sometimes actually choked by the myriads of these organizations, and further, that the vast amount of oxygen required for their development must interfere with the physiological requirements of the body.

Others believe that the blood-globules, particularly the white cells, are greatly injured or entirely destroyed by the entrance into them, in too large numbers, of these organizations, as has been shown; this power of the white cells, ordinarily so favorable, being now overwhelmed and themselves destroyed. No doubt in some cases this is a powerful factor.

Still other theorizers, and particularly those who are opposed to this germ theory of disease, maintain that septic products are formed in the body by ordinary chemical or vital action—these poisonous ptomaines, as they are called, sometimes forming in quantity sufficient to react upon the body and produce disease.

It is improper here to follow the successive steps taken in the evolution of this theory, largely brought out by the researches of M. Gauthier. It is at the present time well known that, as shown by this observer, such toxic products are formed and found in the animal body, and that while some of them are formed by the oxidation of tissues within the body, other like products, even more toxic, are the result of the agency of bacteria. Koch is of the opinion that the comma bacillus secretes or excretes a ptomaine whose reaction upon the tissues may be the efficient, or one of the efficient causes of Cholera Asiatica.

In carefully studying these various theories in answer to the question, How do bacteria produce disease? the opinion seems justifiable that all these agencies are combined in inducing the general result, namely, what we call disease; that the bulk of numbers, the urgent demand for, and great consumption of oxygen not supplied from the external air, the injury or destruction of the blood-globules, and the poisonous action of the bacteria secretions called ptomaines, all together act to produce the pathological result. We may take it for granted, then, at least for the present, that disease results from—

1. Great numbers of bacteria.
2. Great waste of oxygen.
3. Injury of the blood-cells.
4. The toxic action of one or more of the ptomaines.

We now come to the more practical part of our subject, namely, the management of gynecological cases of disease induced by micro-organisms. The indications seem clear —1, to prevent the entrance of pathogenic microbes into the body; 2, to aid as far as possible all the efforts of such infected body to rid itself of them, and of their effects. Nearly the whole subject of treatment is therefore included in what is known as *antisepsis.*

This mode of treating infectious diseases is yet in its infancy, we might almost say in embryo; yet who will deny that it has earned for itself, in its brilliant results, the thoughtful attention, if not the hearty endorsement, of the mass of the medical profession? We cannot ignore the fundamental principles of this comparatively modern theory, because actual demonstrations are by no means wanting. Willingly or unwillingly, we are forced to heed its foundation precepts in our daily rounds.

It would be impossible here to enter into all the details of antiseptic medicine. The search for antiseptic agents and procedures has been well repaid, and yet greater discoveries are undoubtedly to be made in the near future. I prefer to spend what little time is remaining to me in attending to only a few points that are perhaps the more prominent.

A few weeks ago Dr. Howard A. Kelly read a paper before the Obstetrical Society of Philadelphia, an abstract of which is published in the *New York Medical Journal.* The abstract is headed "Asepsis, not Anti-

sepsis," and it so well represents my own views that the reading of it would well repay for the time spent. Dr. Kelly uses excellent reasoning in his preference of asepsis —that is, cleanliness and general hygienic precautions—in preference to any and all kinds of antiseptic treatment, strictly so denominated. He refers principally to the objectionable use of carbolic acid and mercuric solutions, and refers more particularly to their use in abdominal surgery. I am quite strongly impressed, after some little experience, that the same is true with regard to their use in the puerperal septicæmias. The solutions of these germicides, of such strength as to be in any degree efficient, are too strong to be applied to any abraded part of the body, particularly to the vagina and uterus, where, as all must admit, much harm has already been done. In the language of Dr. Kelly: "The patient is very often killed along with the germs," and he then quotes the words of Dr. Goodell: "The first four cases done in the theatre at the beginning of last session had hemorrhage from the kidneys, and two of them died. It was purely carbolic acid poisoning; of that I have no doubt whatever." It is well known that Lawson Tait uses nothing but water and soap. C. Fürst strongly cautions against the use of these antiseptics, *Medical News*, December, 1885. Salivation has been induced by a 1 to 2,000 solution of mercuric bichloride used as a vaginal injection. Goodell is opposed to the use of these antiseptics, emphatically to their application to the cavity of the uterus. And so we might go on with references against the use of these two agents and their congeners, to almost any extent. Yet, strange to say, they are still fashionable in many quarters. For cleansing the hands, instruments, tents, sutures, and other appliances, they are indispensable; but for applications with a view to the destruction of microbes, they should be well-nigh discarded.

Water in my hands serves as the safest and most efficient antiseptic. Water is the great cleanser, and may be used freely and everywhere. As the great Lawson Tait remarks, "tap-water is all sufficient." Lusk says, "distilled water renders the action of bacteria extremely feeble." Keith uses antiseptics sparingly. Hiram Corson, of Pennsylvania, delights in deriding the fashion of flooding the uterus with anything but water, and seldom with that.

Fortunately for our race and for the advancement of true science, hygiene is asserting her lofty position in the conservation of human life. The power acknowledged for antiseptics may wane, hygienics never. Gynecologists, as well as others, have learned this well. Cleanliness cures septic diseases by forbidding even the presence of any and all noxious agents. Keep ourselves and our patient clean, and fear not—waiting, however, for the ideal germicide and antiseptic that may be discovered to serve as the handmaid of cleanliness.

THE DOCTOR AS A SANITARIAN.

BY THOS. W. HARVEY, M. D.,

Of Orange, N. J.

I do not mean the doctor as a sanitary engineer, or the author of a sanitary tract, or as a member of a board of health, but in his daily avocation of adviser on his daily round of visits.

It is in the details of every-day life, in the management of the household, in the practical application of sanitary principles to housebuilding and housekeeping, in the education of his patients in proper ways of living, in the application of those great principles which, a rare compound of scientific thought and good common sense, constitute that new department of knowledge, sanitary science.

The interest in this science is widespread, its literature is already voluminous, its professors are recognized authorities working for the good of the community; but its quackeries are also becoming prominent, and in few other departments of learning does so much "half-truth" pass for law and gospel. The proprietor has but to cry up some weak combination of salt and carbolic acid as a great parasiticide, putting in his advertisement a lot of gush about sanitary laws, bacteria, Pasteur, etc., etc., when its sale is assured. The people are receptive of all such stuff, their minds having been carefully prepared for its reception by the close study of the scientific column of the religious weekly. This imperfect knowledge of sanitary facts is not confined to the laity; it is the rule in the professson, and should be corrected. No person in the community may have more influence for the spread and acceptance of correct knowledge on these matters than the physician. There is no one whose opinion is asked oftener. He is the one of whom first the head of the family asks the question, "Is there anything the matter with my drainage?" How ready every doctor is to answer the question! It does not look well not to know, not to be able to say just where the trouble lies. It

redounds so to his credit in the community to have it said that "The doctor looked over my pipes and pointed out the difficulty at once. *I had no traps.*"

It is my experience that not one physician in ten is qualified to make such an examination. And I might go further and say that very few *know* that such an examination is impossible in nine-tenths of the houses that have been built more than five years.

This state of affairs is very much what it is in medicine proper. The opinions prevalent among the laity are what passed for facts and true theories among the last generation of medical men. We are to-day combating among the people the errors that our fathers in medicine combated in the profession. So in sanitary science what passed muster as good practice fifteen years ago with the professed sanitarians, is still considered the highest kind of sanitation among the people at large and the mass of medical men. We are not keeping abreast of the times. For instance, some ten or fifteen years ago the trap was considered the magnum opus of sanitary skill. Stick a trap on a pipe, and the terrible gases that cause disease, the sewer gas, was imprisoned and done for: it was a stopper that was hermetical. But it took but little time and common sense, and the application of known physical laws, to demonstrate that the trap *per se* was useless. In some places, as between the foundation of the house and the street sewer, it was not only useless, but actually harmful, preventing that free circulation of air through the pipe system, that is the most active and only successful disinfectant agency that can be applied.

Again, this same "sewer gas" has come to be considered a misnomer, or at least a misapplied term. Sewer gas there undoubtedly is; at least in every receptacle containing decomposing organic matter there are present the gases resulting from such decomposition; but those gases that make bad smells in the house do not come from the street sewer. Said a well known sanitary authority, in a recent lecture: "I know of no instance where a bad smell is found emanating from plumbing fixtures that have *not been used*, although connected with the public sewers for some time."

The proper term to be used is "*fixture*" *gas*, and I think the importance of a proper name is evident. The name suggests the treatment and is the basis of the modern arrangement of pipe systems in houses. The aim is not to keep sewer gas or air out of the pipes, but to so arrange the system that what gets in may easily get out, and also that plenty of good fresh air may continually flush them and purify the foul gases that are formed in them.

I mention these instances as indicative of the changes that have taken place and are taking place in the minds of those who are working most actively in this great art of preventive medicine, and because I find such crude ideas prevalent in the profession.

Most medical men are still in the trap and sewer gas period of their sanitary development.

A man imagines that by walking into a bath room, smelling at a wash basin, and calling a closet by its particular name, that he is thereby constituted a sanitary authority, and that he has made an examination from which he may give an opinion that may involve the expenditure of much money to rectify.

I do not want to urge that every doctor should be a sanitary engineer or a practical plumber, but that he should either cultivate a more practical acquaintance with sanitary science, or should have the grace to say that he does not know enough of it to express an opinion. Perhaps at the present time this is all that should be asked. But the physician should know as thoroughly the principles of practical sanitation as he does his anatomy or physiology, particularly the general practitioner, who every day is becoming more and more the *counsellor* in health matters. The specialist is gradually getting away his "practice," but his "advice" is sought more than ever, if it is only to ask to what specialist the patient shall carry his ills; and indeed it is getting to be a serious thing, and a position requiring much judicial acumen, to decide whether the invalid is to be sent to the neurologist, gynecologist, or oculist.

It is evident to every one that more advice as to the way to avoid future sickness is expected from the general practitioner than formerly; and that he may fulfil this duty properly, a much more profound and exact knowledge of sanitary principles is necessary. I think it is the duty of the profession to urge the establishment of chairs of practical hygiene in our medical colleges.

It is also well to remember that the duty of the physician covers the recognition of the causes of disease and wrong conditions generally, but does not necessarily include the details or method of correction.

Another field where the physician is specially needed at present is in correcting the great amount of misinformation that prevails popularly among our people, and to stay the

great streams of error that threaten to drown out the little knowledge that we now have. These are the times when the great "anti" societies flourish, and this sanitary movement has been prolific in the production of "cranks," full of half-digested facts and crude theories which they disseminate among the people, to many of whom such praters appear as disciples of light and the only possessors of true knowledge.

It is time then that the well-informed physician should recognize that this field is one in which he should be the best informed man in the community. He should be the source to whom all should look for their information regarding health, both for restoration and for preservation.

Every physician represents a circle to which he is already an authority in most matters in curative medicine; perhaps by a certain number he is counted second to the medical almanac, but there are a few people among whom his opinion is final. If he decrees death, they die; if he formulates a rule of life for the preservation of health, they will follow it implicitly and will preach it to others.

How necessary then that he should know thoroughly the "reasons why" of our sanitary rules. I know of no department in medicine that requires more of that hard common sense that is the characteristic of the successful general practitioner than the correction of sanitary evils. On the other hand, there seems also necessary the cultivation of a faculty for seeing what lies before the eyes, and of recognizing bad conditions when present.

Every doctor, therefore, who acts as a family physician, should know first what to look for and then where to look for it. It is not necessary that he should ride on the crest of the bacterial wave, or that he should feel perfectly satisfied that he knows exactly the cause of scarlet fever or diphtheria—better not: the fewer preconceived opinions he has, the less his mind is occupied by library-made theories, the more likely he is to see what actually exists, rather than what he expects to find.

There are a few cardinal principles that should guide his search.

Whatever changes the air that we breathe from its natural condition is an impurity.

The same proposition holds good as to food and drink.

The most useful disinfectants are the sunlight, the oxygen of the air, and pure water. Dilution is nature's method for purifying the air, aeration for purifying the water.

Whatever is a source of impurity to the air we breathe renders us liable to disease by depressing the vital forces and weakening the normal resisting power of the individual tissue-cells. The same is true of impurities in water or food.

Any system of sewage collection, carriage, storage, or disposal that does not provide for thorough ventilation and flushing both with air and water, and give plentiful opportunity for cleansing, is faulty. The mechanism is unimportant, so the object sought is well recognized, which is not the getting rid of the waste of animal life in the speediest manner possible, but the return to its original elements of the products of the decomposition of this animal waste in such a rapid and complete way that it may not add impurities to our air and water, or food.

It is not within the compass of this paper to point out the application of this rule to the plumbing of a house, for instance. But if such a system is not made to comply with the requirements of this rule to the letter, it will be a source of ill-health to those who are served by it.

Every physician who will approach these problems with his mind unbiased by previous speculations as to the causes of diseases or as to particular systems of drainage, or in the larger field of the management of epidemics, and will apply to them the same methods of reasoning that he uses in the study of diseases when established and their cure, will find that they are usually easy of solution and productive of much mental gratification to himself. Further, by so much as he becomes familiar with the recognition and treatment of insanitary conditions, by just so much he becomes a more useful member of society, and a more valuable adviser to his patients.

CONTAGIOUSNESS OF TYPHOID FEVER.

BY JAMES E. FREE, M. D.,

Of Emporium, Pa.

In the *Medical News* for July 24, 1886, is a contribution to the literature of typhoid fever which discusses hepatic abscess as a complication. So much has been written upon this subject, namely, typhoid fever, that it would seem as if our knowledge ought to be perfect.

But this paper is an illustration of the fact that careful observers still find things rare enough to be interesting. Hepatic ab-

scess may have occurred a number of times since the days of Hippocrates, but it is one of the few phenomena which has escaped getting into print, and, of course, when some of us stumble upon a case, we suppose that ours is a freak of pathology. It is not safe to claim the credit of a discovery in any science, for no sooner is our boast heralded in the press than a cloud of witnesses arise to prove that we have been anticipated by some poverty-stricken genius who died of a broken heart because his ideas were rejected by an unfriendly world.

Knowing well the ground I stand on, and desiring to dispute no man's title, I would like to put on record some experience of my own within the past year. Every effect must have a cause; but it is not always easy to place our hands on it. This fact accounts for the superabundance of theory produced by mankind. Whatever may be responsible for typhoid fever is widely disseminated, for the circle of its influence extends around the earth.

Dr. Gerhard's remarks on the epidemic at Rosemont, Pa., are doubtless correct, but ever since leaving college I have sought for "confirmation strong as proofs from holy writ" of the teaching of my *alma mater*, and I am bound to say that hard as it is to give up a doctrine which is rooted and grounded in faith, my search has met with indifferent success.

The case which I wish to speak of at the present time occurred in a boy fifteen years old. For two weeks previous to my first visit he had been complaining of being tired; but he has the reputation of having a chronically tired disposition, and his parents suspected him of malingering, and did not attempt to do anything for him until the middle of October, 1885. I saw him October 17, he was then complaining of violent pain in his stomach; there was no desire to vomit, his skin was dry and hot; temperature on the evening of first visit 103½°, respiration 24; tongue was covered with an abundant yellowish coating, the bowels were constipated. No positive information could be obtained as to when there had been a stool. The boy declared he had not been out of the house for nine days, but of course in his condition the statement should be taken with a grain of allowance. The pulse was 100, and on account of the arrest of the biliary function the face, which was flushed and dark, looked like a turnip after sticking out of the ground too far all summer, and being exposed to the scorching rays of the sun. I had had a similar case some time before in the same neighborhood, which was ushered in with agonizing intermittent pains over the region of the liver, and had incautiously made a diagnosis of gall-stone. This time I remembered that prudence is the physician's cardinal virtue, and husbanded my diagnosis, as it were, and resorted to stimulation—a practice first learned from my friend, W. H. De Long, M. D., who says that it is policy to maintain the strength of a typhoid patient by the constant use of alcohol when the temperature reaches 102°.

By the way, a remark which is not germane to the subject suggests itself. Examining surgeons for the pension department will call to mind the extravagant claims sometimes made with regard to the sequelæ of typhoid fever. Civil practice proves that the subjects who escape the death penalty usually recover their health and strength rapidly and permanently, and it is remarkable if there is any wide variance from this rule in the same disease contracted while on the march or in camp. A man, for instance, had an attack of enteric fever in 1863, and now comes before the surgeon for examination. Supposing he recognizes the symptoms of incipient Bright's disease, namely, increased arterial tension, increased apex impulse and cardiac dullness, and ventricular hypertrophy, is he justified in saying that the ex-soldier is entitled to a pension on account of disability received during service? These lesions he knows to be compensatory, and therefore hardly likely to have existed for a score of years. Such are the difficult problems which may have something to do with the veto of pension bills.

But, to return to my patient. There were nine in this family, and as I studied their surroundings, which were very far from the standard of hygiene and sanitation, I became convinced that at last Providence had put me on the track of contagious typhoid fever. So a book to note the particulars of each case as it developed was prepared.

Different localities are not alike susceptible to typhoid fever, unless in the time of an epidemic—then indeed no barrier is strong enough to protect us. My patient lived in what is known as Rich Valley, northwest of Emporium. It is nine miles long, and perhaps on an average a quarter of a mile wide; its outlet is just at the upper end of the town. On the south, west, and north it is bounded by mountains. One peculiarity of the inhabitants is the fact that, like our remote ancestors, they have descended from a common stock. Several generations ago the valley was settled by two or three families,

and their descendants have married and cohabited until the genealogy of the valley is involved in inextricable confusion. As far as can be discovered, there is nothing peculiar in the topography of the valley, excepting that it meets the mountains at its upper end. It is as well watered by creeks and rivulets as neighboring portions of this district, and the soil, judging from the abundant crops, is equally fertile; but here typhoid fever is rampant. No other disease occurs with such frequency, with the exception probably of *confinements.* (?)

Another remarkable fact to my mind is the exemption which Emporium enjoys with regard to enteric fever. Considering that the creeks which drain Rich Valley feed the stream along whose banks our town is built, what is the explanation of this exemption? An immense tannery is located at the outlet of the valley, and its refuse is emptied directly into the creek. Is it possible that any disinfectant properties are inherent in the waste of tanneries? The miserable stench which ascends towards the heavens may, in that event, be a physiological blessing, but there are sojourners here who think it is a deeply-disguised blessing.

There was nothing peculiar about this case of typhoid fever—it progressed as ordinary cases are prone to do—but what seemed strange to me was the immunity which the rest of the family enjoyed; they lived in a state of semi-poverity, and the younger members of the family spent a large portion of their time tumbling over their brother's bed; but not one of them, however, has had the prodromal symptoms of the disease.

Prof. John S. Lynch, of the College of Physicians and Surgeons, Baltimore, used to say that typhoid fever sometimes occurred in such a mild form that the patients were hardly conscious of anything being the matter with them. It might have been thus in this instance. Another of the professor's pet ideas was the power of heroic doses of quinine to abort typhoid fever. This I have tried in several cases of suspected typhoid, but when no further symptoms of the dreaded malady developed, my conscience condemned the diagnosis, and made me doubt whether I had not been like Don Quixote, fighting an imaginary foe.

At the end of the fifth week the boy, who up to this time had been progressing nicely, began to complain of pain in his side; to use his own words, he felt as if he "had a bile in his belly." The liver was considerably enlarged and interfered with the action of the diaphragm, and also prevented expansion of the lung. A distressing cough ensued, and the temperature of the body fluctuated between wide limits, sometimes being subnormal, as low as 94° once. At the time I attributed the low index to some fault of my thermometer, but now know that it is characteristic: there were now profuse sweats, occasional chills and hot flashes, and emaciation.

It was about two weeks from the inception of the hepatic trouble that heroic measures seemed to be demanded, and I resolved to resort to something effectual in the morning.

During the night of November 30, 1885, the Warner House, one of the finest hotels in this section of the State, was burned to the ground, and a number of the guests seriously injured by jumping from the roof and windows. Consequently, the physicians of this place had their hands full for a number of hours, attending to the wants of the suffering. The next day I was unable to attend to practice, and in a few days developed an attack of genuine typhoid fever. More than a month afterwards, when I was again able to go about, I found that the boy had passed about a quart of "yellow matter" per rectum, and afterwards recovered, as if by magic.

Now, what I am studying over at the present time is this—why a man who, so to speak, had obeyed the commandments of prophylaxis from his youth up, should be stricken down with a disease which a family who lived within constant reach of its deadly germs refused to contract?

Medical Societies.

THE PHILADELPHIA NEUROLOGICAL SOCIETY.

Stated meeting, March 22, 1886.

The President, S. Weir Mitchell, M. D., in the chair.

Dr. H. C. Wood read a paper on

Landry's Paralysis.

In the course of the paper the symptomatology and diagnosis of neuritis and poliomyelitis were to some extent considered.

Dr. G. Betton Massey said that in regard to pain on pressure in poliomyelitis, that it is of interest to recall the fact that in this affection the skin is unusually sensitive. In children, for a year after the attack, there is hyperæsthesia to tactile impressions and especially to the battery. Hyperalgesia

would probably better describe the condition. These cases have presented marked reactions of degeneration, and it has seemed to him that the greater the reactions of degeneration the greater the sensitiveness to the galvanic current in children. An autopsy is by no means necessary to make out the diagnosis, for the clinical histories of these cases are almost identical. It should be as easy to diagnose acute poliomyelitis in a child as to diagnose small-pox. He thought it might be possible, in the cases referred to, to remove a portion of the nerve for examination during life.

Dr. Wharton Sinkler, in reply to Dr. Wood's statement that the diagnosis cannot be regarded as proved unless there has been an autopsy, said that we cannot make autopsies in all cases, and we must therefore infer that our diagnosis is correct when the symptoms are identical with those of other cases in which autopsies have been made. Competent observers in this country and abroad have made post-mortem examinations in cases of infantile paralysis, and have found distinct lesions in the anterior horns of the cord. Hence we may assume that there is such a disease as poliomyelitis anterior. He had seen children, as described by Dr. Massey, in whom there was hyperæsthesia to electricity, especially to the galvanic current.

At least twelve or fifteen years ago Barnwell advanced the view that infantile paralysis was a disease of the peripheral nerves; the later observers, supported by autopsies, seemed to have disproved his theory. Kennedy has described a variety of infantile paralysis under the name of temporary paralysis. We believe that this disease is distinct from "myelitis of the anterior horns," and it may be the result of a diffused neuritis, as suggested by Dr. Wood. He had no doubt that some of the cases of the so-called spinal paralysis of adults, those of short duration, may be of a similar nature.

Dr. Francis Dercum had lately seen a case in private practice which was of interest in this connection. A man who had been exposed to damp and cold had a chill followed by fever. He was called to see him, and found him suffering with intense pain affecting both brachial plexuses, followed by rapidly developing paresis of both arms. This was evidently a case of peripheral neuritis. The electrical reactions were examined by Dr. Lloyd, who can better give the results of this examination.

In such a case, if the patient does not die early, we may expect the cord to become involved, and then, in the absence of a knowledge of the previous history, it would be impossible for any one to say which was the primary lesion.

He thought it possible that we may have a disease in which both the centres and the nerve trunks are affected simultaneously. Diphtheritic paralysis is probably a case in point.

Dr. James Hendrie Lloyd thought that the case referred to by Dr. Dercum was of interest, especially with reference to one or two points which had been brought forward in regard to the reactions of degenerations. This man was completely paralyzed in both deltoid muscles, and in the right infraspinatus and the right teres major and minor muscles. The left infraspinatus and teres muscles were perfectly normal. If this was a case of peripheral neuritis, we have facts contradicting some observations made to-night. In this case, typical reactions of degeneration were present. The changes were both serial and modal, and the faradic irritability was almost extinct. There were no fibrillary contractions in this case. In regard to this subject of reactions in wasting muscles, it seems to him that where there have been marked fibrillary contractions, the reactions of degeneration are not as distinct as we should expect to find them, and this is probably due to the fact that such cases are caused by a slowly advancing anterior poliomyelitis, in which the trophic centres are very gradually destroyed; whereas, in peripheral neuritis the lesion would be more quickly established, and the characteristic electrical changes would be earlier observed.

Dr. Charles K. Mills thought that while multiple neuritis may occur more frequently than we have been led to think, still, we have as yet few positive diagnostic points. Pain on pressure over a nerve trunk is perhaps one of the best signs of neuritis of all forms, but this is also sometimes found in subacute myelitis of the anterior cells, and in neuralgias there is hyperæsthesia at limited points. In genuine posterior sclerosis at times limited areas of pain on pressure are present. In regard to Landry's paralysis, it seems that subacute myelitis of the anterior horns would simulate it more closely than anything else.

Some years ago, Leyden advanced the view that locomotor ataxia was due to neuritis, and since then this view has been advocated by different authorities. We find tenderness over the nerves in various spinal and cerebral affections. In some cases of brain tumor, hyperæsthesia is a marked feature. The same is sometimes seen in spinal tumors.

It might be said that in these cases there was also neuritis, but in some cases of brain tumor this is impossible. The tumor may be so high as to be remote from the nuclei of origin of the nerves. Leaving post-mortems aside, the uniform bilateral character of many of the cases classed as subacute anterior poliomyelitis is, so far as it goes, in favor of a central origin of the disease.

The suggestion of Dr. Dercum that the disease may simultaneously affect the nerve trunks and the centres seems more philosophical than to attribute all these cases to multiple neuritis. In arsenical paralysis, he believed that the nervous protoplasm was everywhere affected.

The Use of Nitrite of Amyl in the Severe Paroxysms of Whooping-cough.

By Dr. Morris Lewis.

E. B., female, æt. 13 weeks; breast-fed; a well-formed, healthy baby; rather small, and weighing about seven and one-half pounds.

At the age of seven weeks, having just recovered from the effects of a perfectly normal vaccination, she contracted whooping-cough from her brother, whose case had been one of the lightest character, rendering the diagnosis impossible for over two weeks. The infant's cough for the first week was but slight; but during the second week it began to show the characteristic symptoms.

The child was placed upon a mixture of belladonna and alum every three hours, and progressed favorably until the night of February 12, which was towards the end of the second week of the disease; it was then seized with a violent paroxysm of coughing, became purple in the face, and finally, according to the mother's statement, ceased to breathe. I was immediately sent for; but before I could answer the summons, the mother had thrust the child out of the window into the cool, damp air of a foggy night. This procedure was immediately followed by an inspiratory effort, and the child breathed again. When I arrived, the child was in an exhausted state, and was breathing regularly. After this, until the 22d of the month, but one other slight attack of this nature occurred. By this time the child was coughing in a perfectly typical manner. The medicine was continued, but in slightly larger doses, the child taking about the one-twelfth grain of extract of belladonna in the twenty-four hours.

On the night of the 22d there were three severe paroxysms, during all of which I was present.

The child would awaken with a series of violent expiratory coughs, with scarcely an inspiratory effort between them. Finally, an expiratory spasm would occur, lasting fully fifteen seconds, during which the child would struggle and become perfectly livid. This would be succeeded by complete collapse, with entire suspension of respiration, due probably to exhaustion of the respiratory centre.

During the last two of these attacks I administered ether by inhalation, and believe that thereby the spasmodic stage was somewhat shortened; but the subsequent collapse was so severe that I was obliged to resort to artificial respiration, and once had to continue it for ten minutes, as during that time there were but one or two feeble attempts at inspiration. The evening before I had placed the child on the $\frac{1}{100}$ of a grain of sulphate of atropine every three hours.

Dr. William Pepper then saw the case with me in consultation, and suggested combining a small amount of nitrite of amyl with the ether to prevent if possible the stage of exhaustion. This combination seemed to have a good effect; but, as the amount of ether required seemed to render the child drowsy and disinclined to nurse, I gradually diminished the proportion of ether until the mixture contained one-fourth part of nitrite of amyl. This mixture was kept in a small vial, and with each cough the end of the finger was wetted with the mixture and held close to the child's nose and mouth, so as to catch the first inspiratory effort. Thus administered, the child practically got nothing but nitrite of amyl. After the commencement of this treatment the child never had another attack of exhaustion, and the severity of the paroxysms seemed to be lessened, although the child coughed just as frequently, the number averaging fifty in the twenty-four hours, the amyl being given each time.

No untoward effects were at any time noticed, even when once I held the bottle, containing at least 10 drops of amyl, to the child's nose.

It was difficult to judge of the amount of flushing produced by the drug on account of the flushing caused by the cough.

I am confident of the beneficial effect of the nitrite of amyl in this one case, and although one swallow does not make a summer, I think the drug will be found of use in analogous cases.

Dr. John M. Taylor, who assisted me in watching the case, is also positive of the good effect produced.

In the short time that I have had to look up the literature of the subject, I cannot find that nitrite of amyl has been used in

whooping-cough, nor has anybody that I have spoken to on the subject known of its use.

By diluting the nitrite with ether or alcohol, it can be administered in any dose required, and could more easily be placed in pearls than the pure nitrite.

By placing it in a bottle with a small top, that can be covered easily by the finger, it can be almost immediately administered by simply wetting the tip of the finger by inverting the bottle.

The child is now doing well, and has had no complication other than a slight umbilical hernia.

Stated meeting, April 26, 1886.

The President, S. Weir Mitchell, M. D., in the chair.

Dr. H. F. Formad, by invitation, read a paper and presented specimens illustrating

Different Forms of Cerebral Hemorrhage.

Dr. Dercum said that Dr. Formad states that in no case can the blood find its way from the pia mater into the ventricles. That is true of the general surface of the brain, but not of the base. Profuse hemorrhage at the base may find its way into the lateral and third ventricles through the transverse fissure of the brain: of this he had seen an instance.

Dr. Charles K. Mills thought that perhaps the statement in regard to the first class of cases may be misleading, if he says absolutely that small hemorrhages in the fourth ventricle and in the lateral ventricle occur only from traumatism. These are of frequent occurrence, particularly in the floor of the fourth ventricle in many diseases. They probably take place at the time of death. He has seen them in cases dying in the epileptic status. They have been found in cases supposed to be hydrophobic.

The occurrence of the hemorrhage in the second class of cases opposite the point of application of the force is interesting, and he thinks is best explained by Duret in his papers on traumatism. He attributes it to displacement of the cerebro-spinal fluid with the formation of numerous vacuoles and the rupture of the blood-vessels from within outward, the largest vacuoles usually occurring opposite the seat of injury. In those cases in which the hemorrhage is in the lenticular body and works its way into the lateral ventricle, numerous ecchymoses occur in various parts of the membranes and of the brain. These occur for the same reason as when the skull is struck from the outside.

He believed that in children hemorrhages occur beneath the pia mater without any special recognizable cause. He has seen one case in which meningeal hemorrhage occurred in a new-born child, probably as result of traumatism from the use of forceps. Where children die soon after delivery, he believes that death is sometimes due to this cause.

Dr. Charles K. Mills reported a case of

Unilateral Sweating.

The patient was an unmarried woman thirty-four years old, sent to him by Dr. Deakyne. Eighteen or nineteen years ago she began to have spasmodic attacks which seemed, from description, to be epileptic. About fourteen years ago she had a stroke of left-sided paresis. About the same time she began to perspire excessively on the side of the paresis. This unilateral sweating has continued up to the present time and is more marked than before. The secretion on the right side is normal. There is also increased lachrymation on the left side. The saliva seems to be about in equal amount on both sides. Before the occurrence of the spasms she complained of a peculiar taste, probably metallic. She occasionally has slight attacks of dizziness, is somewhat absent-minded, and at one time had severe pain in the head. Four years ago the spasms ceased. The left side of the mouth is visibly drawn a little upward. There is slight paresis of the muscles supplied by the facial nerve. She cannot draw up the left side of the mouth volitionally as well as the right. The slight loss of power in the limbs of the left side is more particularly in the arm.

She has had no trouble with the bladder or bowels. At times the left side of the face reddens very much and remains so for some time. She has some pain on the left side. She has been chiefly treated for uterine trouble. She does not present any signs of the hysterical temperament. Against hysteria are the facts that, in the first place, she has paralysis of the muscles supplied by the facial nerve; second, she has contracture on the left side, which is sometimes present in old cases of facial paralysis; and, third, the persistence of the condition for fourteen years.

Dr. Edward T. Reichert thought that it is not only probable that sweat centres exist in the spinal cord, but also that there is a dominant centre in the medulla oblongata. The latter is no doubt bilateral, and while it generally acts as an individual centre, affecting in like degree sweating on both sides, the centre on one side only may be in a condition of over-excitement, as is probably the condition in the present case, thus causing unilateral sweating. The lesion must, he thinks, be above the middle of the pons in order

that there may be paralysis of the face and limbs at the same time.

Dr. Francis Dercum believed that the supposition of some lesion of the cortex going on slowly and leaving a sclerotic patch, and followed by degeneration involving these so-called sweat centres might explain the case. As regards unilateral sweating, he observed it for four or five years in a case which subsequently terminated in apoplexy. No autopsy was made.

Dr. Charles K. Mills said that Dr. Reichert's remarks would indicate a possible cause for this case. It seemed to him that it might be due to a very small tumor or patch of degeneration of some kind high up in the pons. He found, in looking up the subject, one case of unilateral sweating reported in which degeneration of one of the cervical ganglia was found. He attached but little importance to this. He had recently looked up the subject of unilateral progressive facial atrophy, of which more than fifty cases have now been reported. In a majority of these there has been diminution or entire absence of sweat on the atrophic side.

BALTIMORE GYNÆCOLOGICAL AND OBSTETRICAL SOCIETY.

Regular meeting held March 9, 1886.

First Vice-President, H. P. C. Wilson, M. D., in the chair. Wm. E. Moseley, M. D., Secretary.

Dr. P. F. Mundé, of New York, read the following paper:

Ovariotomy During Acute or Chronic Peritonitis.

It has been my misfortune in my experience with the operation of laparotomy for abdominal tumors to meet with the most complicated and unfavorable cases. Thus of sixteen double ovariotomies there were four intra-ligamentous cysts, three of which contained pus and were not removable except by piece-meal; in two cases the walls of the cyst were practically rotten and so friable as to break down under the slightest manipulation; in one case there was a suppurating dermoid cyst with extensive adhesions to the bladder and pelvic wall; and in two cases previous rupture of the cyst, with the production of diffused chronic peritonitis had taken place. Adding to this latter category three cases of single ovariotomy during chronic peritonitis in two of which the peritonitis was due to rupture of the cyst, and in the other to aspiration, and I have had five cases of ovariotomy performed during general peritonitis, one acute and four chronic. Certainly this array of complications does not forecast a high rate of recovery, and in reality it stands at 50 per cent. of double ovariotomies. But I have the satisfaction of knowing that one patient recovered after operation during chronic peritonitis, one after removal of a suppurating dermoid cyst with lesion of the bladder and catgut suture, one after removal of a multilocular cyst weighing fifty pounds, all double ovariotomies, and one after partial excision of a huge cyst of the broad ligament containing 48 pints.

Of my single ovariotomies nearly all recovered. But it is not my object to report here my results in ovariotomy (I must wait until the number of my cases has greatly increased before it is worth while to do this), but to relate very briefly the cases in which I have been so unfortunate as to have presented to me conditions for which I deemed it my duty to operate, and still in which the chances for recovery were next to nothing. I think that from a consideration of these cases some practical deductions for future guidance may be gathered. At all events, I hope to elicit valuable hints from the discussion. I feel it but just to myself to state that in operating upon these, often really desperate cases, I have been actuated by the rule very properly, as I think, laid down for his own guidance by Dr. Goodell, never to refuse to operate in any case which, in his opinion, offered the slightest chance for the recovery of the patient. And, with him, I have thereby no doubt greatly injured my statistics of recovery. But as we usually learn quite as much, if not more, from our failures than we do from our successes, I do not hesitate to report the five cases of ovariotomy during peritonitis, only one of which recovered, feeling that I have nothing to reproach myself for either in venturing to operate or in the after-treatment. As to the justifiability of immediate removal of an ovarian cyst during peritonitis, acute or chronic, as soon as the existence of the latter condition is discovered, there can probably be no question since the brilliant results of Keith, Freund, Veit, Tait, and many others, in operations of this kind. Some of the apparently most desperate cases have recovered after removal of the ovarian cyst and drainage. The peritonitis may be due to two causes—1. The inflammation and mortification of the cyst; and 2, its rupture and the escape of its contents into the peritoneal cavity; and it is on these two points, the diagnosis of the cause and presence of the

peritonitis and the treatment of the cyst contents effused into the peritoneal cavity, that I desire to dwell more particularly. 1. The cause of the peritonitis may be either accidental rupture of the cyst, by violence or spontaneously, the cyst walls having become inflamed or friable by torsion of the pedicle, outside violence, or without known cause. Or, a not unfrequent occurrence, aspiration or tapping of the cyst may have excited inflammation of the sac or peritonitis. The *diagnosis* of acute peritonitis in such cases is based on the general principles on which that condition is recognized. Subacute and chronic inflammation of the peritoneum, however, are more obscure and can be suspected or clearly discovered chiefly by a rise of temperature, with morning and evening exacerbations, a dry furred tongue, quick small pulse, general depression, in fact symptoms similar to those characteristic of typhoid fever. There is some tenderness over the abdomen, which is of course distended if an ovarian cyst is present, but the distention is not so prominent and ovoid as is usually found with that disease. The occurrence of rupture of an ovarian cyst may be surmised from the statement of the patient that at some period more or less remote, a sudden pain was experienced in the abdomen as though something had given way, and that thenceforth she had diffused abdominal pain, fever, and general prostration; further, from the appearance of the abdomen, which is flat, while distended, simulating ascites, with tympanitic resonance over the prominent portions and dulness in the flank, which relations do not change or but slightly on the patient assuming the lateral decubitus. If it were ascites, the area of dulness and resonance would change on altering the position, but the thick ovarian fluid does not shift so easily as the watery ascitic discharge. Besides, there is a boggy, doughy feel of the whole abdomen, different from either ascites or ovarian cyst, and similar to œdema of the abdominal parietes. The umbilicus, which is usually somewhat prominent in ovarian tumors and ascites, remains flat if thick ovarian fluid is scattered among the intestines. A wave of fluctuation is usually not perceptible or very indistinct after rupture of an ovarian cyst, unless the fluid is very thin. Per vaginam only a very diffuse indistinct sense of resistance is felt in the vaginal vault. On bimanual examination no distinct cyst with firm elastic walls is felt, but the experienced diagnostician will detect a flaccid, yielding, boggy mass in the abdomen, which varies in dimensions in accordance with the time allowed the cyst to refill since the last rupture. Only a practiced touch will recognize this peculiar sensation and appreciate its relation to the general condition of the patient.

2. The *treatment* of an ovarian cyst complicated by chronic peritonitis, be the latter due to aspiration or to rupture of the cyst, invariably is laparotomy, removal of the cyst, and cleansing of the peritoneal cavity so far as possible, followed by drainage. There can be no doubt as to the justifiability of this practice; too many operators of the highest eminence have adopted it, and its success as a whole has warranted their action. But as to the treatment of the contents of the cyst which were effused into the heretofore presumably healthy peritoneal cavity, there exists some difference of opinion. While *eo ipso* the only correct treatment would seem to be the immediate careful removal of all the noxious contents of the ovarian cyst from the peritoneal cavity by sponging and irrigation, experience seems to show that drainage will in course of time entirely and safely remove the ovarian fluid (which is often colloid, that is, thick and glutinous), and that no harm occurs to the system by allowing this usually irritating matter to remain in prolonged contact with the peritoneum. In explanation of this apparent immunity it should be noted that the peritoneum doubtless has by chronic inflammation become proof against fresh irritation. My experience warrants me in stating the belief that it is safer to leave the gradual elimination of the effused ovarian fluid (be it thick or thin) to the medium of the drainage-tube than to attempt to remove it manually (if it be stringy and colloid) by prolonged, careful sponging or by copious antiseptic irrigation of the abdominal cavity. I cannot but think that the traumatic irritation of the last procedure and the shock following the irrigation of so large a surface as the intestino-peritoneal area by an antiseptic lotion (particularly bichloride) are more injurious and hazardous than to allow free, voluntary drainage through a tube. I am impelled to this conclusion by the result of a case operated on by Lusk during the past year (reported to me by Polk, who was present at my fourth operation of this kind, and who concurred in the treatment), and another reported by Max Runze (*St. Petersburger Med. Wochenschrift*, 2, January, 1886), in both of which rupture of the cyst took place, an enormous quantity of thick gelatinous matter was found in the peritoneal cavity, which was removed gently so far as

possible, the cavity was then drained and recovery took place. In Runge's case, colloid matter was discharged from the drainage-tube as late as the fortieth day after operation. That the danger of fresh septic infection, of relighting the subacute peritonitis, and above all, of seeing the patient die from shock, stare the operator in the face in such cases can unfortunately not be denied. It is a question simply of leaving the patient to a certain and lingering death or of giving her the chance of recovery by an operation, the results of which have been often most favorable. My own individual results should be no criterion, since my cases have been exceptionally difficult and unfortunate. After these preliminary remarks, which have attained a length quite unintended, I will give a brief report of my five cases of ovariotomy during peritonitis.

Case 1. Æt. 33; single; November, 1875; apparently unilocular cyst; abdomen exceedingly tense. Operation refused. In order to gain time and to relieve tension, aspiration with fine needle under antiseptic precautions. Removal of the chocolate-colored fluid. About a week later high temperature and symptoms of subacute peritonitis. Ovariotomy, November 14; patient, with pulse 120, temperature 99.5°, exceedingly prostrated. Cyst entirely removed; peritoneum studded with flocculent lymphatic adhesions and deposits. Drainage. Death on sixth day from septic pyemia, the right parotid gland showing probable metastatic enlargement and suppuration. Earlier operation might have saved this case.

Case 2. Mrs. F., forty-four years, multipara; large—apparently solid—tumor. Operated on March 10, 1881; colloid matter escaped on opening peritoneal cavity. A large multilocular tumor adherent to bladder and intestines. Fully fifty ligatures were applied; thorough syringing; no drainage. Recovery without a bad symptom. Weight of tumor, thirty-five pounds.

Case 3. Mrs. S., thirty-eight years; single; was seen by me in September, 1883; lived in a farm-house in New Hampshire, seventeen miles from Hanover. Evidently in a septic condition. Double ovarian tumors. Advised removal as last desperate chance. Accepted. Day appointed for operation about one week later. Drove out with assistants and found patient greatly weakened by vaginal hemorrhage the night before. I discountenanced the operation, but she insisted upon it. Pulse 130, temperature 102°. On opening the abdominal cavity, gush of colloid and purulent matter; general chronic peritonitis. Right tumor largely adherent; left intra-ligamentous, rotten and removable only by piece-meal. Death of patient while inserting abdominal sutures.

In this case I should never have consented to operate, but for the urgent request of the patient and the fact that I had come so long a distance to do the operation. Had the second tumor not been intra-ligamentous and so difficult of removal, I firmly believe that I could have at least removed the patient from the table alive.

Case 4. This was the most interesting and instructive of all my cases. The patient was a multipara, who, in August, 1883, had a fall on the abdomen, and then noticed an abdominal enlargement, with severe pain, both of which had increased since. The abdomen was found, in March, 1884, when I first saw her, to be flat, with projecting sides, dull on percussion, indistinct fluctuation, which remained unaltered on changing the position of the patient. On the right side a loose flaccid mass could be felt. Aspiration was performed, but nothing obtained. On the left side deep in the pelvis was found a tumor of the size of a cocoanut, with tense walls. Diagnosis of rupture of ovarian cyst of right side (probably colloid on account of absence of fluid by aspiration) and of intra-ligamentous cyst of left side, was made and early operation advised. But as patient still felt pretty well, she decided to wait. Three weeks later she returned very much worse and desired immediate operation. Temperature 103°. On opening the peritoneal cavity, colloid, stringy matter escaped in enormous quantity, and it required careful manual efforts to remove even a semblance of all the effusion, which reached from Douglas's pouch to the diaphragm. It seemed to me, and to those who assisted me, imperative to remove as much of this supposed toxic material as possible, and I finally decided to irrigate the abdominal cavity with a 1 to 2,000 solution corrosive sublimate, with the patient on the side. The colloid matter came from a cyst of the right ovary, as diagnosed three weeks before the left cyst was enucleated, and proved to be full of fœtid pus. The colloid matter removed weighed thirteen pounds. The highly prostrated patient died of shock twenty-two hours after operation. I feel fairly confident that if I had allowed the colloid matter to find its way out of the peritoneal cavity gradually through a drainage-tube, under proper antisepsis, the patient would have stood a far better chance of recovery, as did those of Lusk and Runge.

(*To be continued.*)

EDITORIAL DEPARTMENT.

PERISCOPE.

Illustrations of Exceptional Symptoms and Examples of Rare Forms of Disease.

Mr. Jonathan Hutchinson thus writes in the *Brit. Med. Jour.*, July 10:

RECOVERY FROM ASCITES, AFTER PARACENTESIS, IN A YOUNG MAN, THE SUBJECT OF DISEASE OF THE LIVER; GOOD HEALTH SEVENTEEN YEARS AFTERWARDS.

I saw, with Mr. Alfred Kennedy, at West Ham, in May, 1884, a case of very considerable interest in reference to prognosis. Our patient was a man, named G., now aged 35. The reason for my seeing him was that he had been recently injured in a railway accident, but the interest of his case belongs wholly to his former history. Seventeen years ago, when he was 18, he had a long illness which, he said, was diagnosed as "ascites, pleurisy, and diseased heart and liver." He was treated in St. Thomas's Hospital, under the care of Dr. Bristowe. Some scars under the umbilicus confirmed his statement that he was tapped more than once for ascites. The left side of his chest was decidedly contracted. Both legs were covered by dusky stains, as if he had formerly suffered from thrombotic purpura. His heart's action was very irregular. I could not detect any *bruit*, and there was no proof of hypertrophy, but the action was peculiar and jerky, possibly from adherent pericardium. I was told that on some occasions a murmur had been detected. His liver was still very much enlarged; its edge, thickened and bossy, could be very easily felt two inches below the ribs; it appeared to be equally enlarged in all parts. The man told us that he had enjoyed excellent health, in spite of the conditions mentioned, ever since his discharge from St. Thomas's Hospital. He had never had any return of the ascites or œdema of the legs. He had led an active life, and had only suffered from a little shortness of breath and palpitation, after making unusual exertion. He had been married for six years; he looked fairly healthy, but not robust. Since the railway accident, he had suffered from palpitation, with a tendency to faintness and to hysteria. There did not appear to be any definite explanation of his former illness, for he alleged that he had always led a temperate life.

Having forwarded the above narrative to my friend Dr. Bristowe, he was so very kind as to refer to the hospital records, write out the following notes, and permit their publication:

Dr. Bristowe's Notes.—"G. G., aged 20, came under my care in St. Thomas's Hospital, November 11, 1869. The history he gave was to the effect that, two years previously, he had been laid up for three months in University College Hospital with pleurisy, from which he had recovered; that, three months later (eighteen months ago), he began to complain of swelling and tenderness in the epigastric region, and that, from that time, he had been gradually enlarging in the abdomen. He continued at work up to three weeks ago.

"On admission, he was pale and thin. The abdomen was large, containing so much fluid that only a very small area of resonance existed in front. There was no tenderness, and no definite enlargement of liver or tumor to be detected. The left side of the chest was much contracted, measuring, at the nipple line, only 16½ inches in circumference (the right measuring 18). It was dull in its lower half, and the breath-sounds were feeble or absent; no cough; no signs of progressive disease; urine free from albumen; legs œdematous. In other respects he was healthy. The abdomen slowly increased in circumference (at level of navel) from 38 inches to 41, and, on January 6, two months after admission, twenty-three pints of fluid were removed by paracentesis. He was relieved, but slowly refilled, until, on March 7, twenty pints were removed. After this he appeared to be filling again slowly, and he left the hospital on April 11, still presenting some ascites; but his general health seemed good.

"I have no record of his occupation, or of his habits, or of any statement with respect to syphilis;* and I never detected clear evidence of disease of the liver. I have not recorded my diagnosis; but I suspect that I attributed his affections, first, effusion into

*The notes from which I quote are in my own handwriting, and I believe that the absence of reference to these points means that I elicited nothing worthy of record or that seemed to throw light on the nature of his case. My notes are difficult to read. On looking through them again I find that after each tapping I examined the abdomen; that, after the first, I did not recognize hepatic enlargement; but that, after the second, I remarked that there was dulness for two inches below the right ribs, and that, in the scrobiculus there was a distinct hard edge, feeling like that of liver, but moving with the abdominal walls.—J. S. B.

the pleura, and then ascites, to tuberculosis. During the greater part of his residence in hospital, he was treated with quinine and iron. There was no disease of the heart."

Simulation of Brachioplegia by Rheumatism.

When the patient to whose case the following statements refer entered my room, with his head bent forwards and his arms held stiffly by his sides, I certainly thought, as he did, that it was a case of incomplete paralysis of the upper extremities, probably consequent on an injury to the cervical spine; and it will be seen that the history which he gave was one which quite fitted with such a diagnosis. He said that his arms were powerless immediately after a fall from a swing, and that they had remained so ever since. On careful examination, however, I came to the conclusion that nothing had happened excepting a severe contusion of the neck and shoulders, causing pain in motion, and that the enforced rest, subsequently, had induced rheumatic stiffening of both shoulder-joints. On careful inquiry, it appeared that at no time had there been any sensory paralysis. There had never been any numbness in the limbs, or "pins and needles." Although all the muscles were wasted and thin, none were especially so, excepting the deltoids. He could move all the joints of his forearms, hands, and fingers, quite well. The deltoids were so wasted, that all the bony prominences were easily seen. Both shoulders were stiff, permitting only the very slightest degree of motion; in both, there had been much aching, especially about the insertion of the deltoid, as usual in cases of rheumatic disease of the joint.

I inquired whether there was any tendency to rheumatic gout in his family, and found that his father had had gout, and that he himself had suffered from lumbago. From the manner in which he held his head stiffly forwards, and from his complaint of pain in the back of the neck and shoulders, it seemed probable that rheumatic changes were in progress in the joints of the vertebræ, tending to the production of spondylitis deformans. It is possible that he may have had some fracture of the laminæ; but, whether this occurred or not, it is clear that there were never any real indications of injury to nerves. After the fall, he had much pain in the neck, and could not use his arms. He could walk, and was able to ride home, and walked upstairs, holding his arms across his chest and his head bent forwards. He was nearly two months in bed after the accident, with pain in the neck and arms. During that time, he lay almost constantly on his back in one position.

Neuralgia of the Scalp, Probably of Gouty Origin: Detailed Description of the Pain.

A gentleman, possessed of some anatomical knowledge, and almost hypochondriacal in his tendency to self-observation, described to me the following symptoms: Early in the morning of March 2, he experienced over the middle of his left parietal bone a sharp explosion of lightning-like pain. It began exactly in the middle, and passed forwards nearly to the forehead, and backwards nearly to the occiput, being most intense in the centre. It radiated a little laterally, but not nearly so far as it went backwards and forwards, and it never crossed the middle line. It did not run in straight lines, but spread out somewhat like a coruscation of sheet lightning. It was over in a few seconds, but quivered a little, not being absolutely momentary. After one explosion, another, and often a third or fourth, would follow in quick succession, and then he would be quite free for half an hour or an hour. The scalp was not in the least tender. The pain was quite bearable; in fact, at first it rather amused than hurt him; but, as the day went on, it became worse, and the explosions were attended by a feeling as if the left half of the head were being suddenly crushed. In the evening, the explosions were both more frequent and more prolonged. On some occasions, there was the suggestion of a pain passing into the cheek and lower jaw, involving, in fact, the whole half of the head; but, in these parts, its course could not be traced with accuracy. Neither in the upper nor in the lower jaw did it run along the course of known nerve-trunks. The bicuspid tooth of the lower jaw was aching a little all day; but it was a steady ache, attended with a feeling of general numb swelling about it, and with tenderness on pressure, which prevented eating, but without any explosions of severe pain. My friend became very nervous in the evening, feeling sure that he was about to be the victim of "tic-douloureux."

I found that, on the previous day, he drank a bottle of claret instead of his usual modicum of a third; that he had eaten much more liberally of meat than was his wont; and that, on the day on which his neuralgia began, he also felt his ankles and wrists puffy and aching; and, finally, that his urine began on that day to deposit uric acid freely.

Knowing that he had for long been threatened with gout, I assured him that the neuralgia was gouty, and made him take a full dose of bicarbonate of potash at bedtime. On the next morning, both the toothache and the sheet-lightning pains in the head had ceased, and nothing remained but a very slight perception of general ache in that side of the head.

Although it is easy, in this instance, to feel confident as to the influences which were at work, and to say that the neuralgic shoots, and probably the toothache also, were caused by a gouty state of the blood (lithæmia), yet it is more difficult to explain the local mechanism of the pain. The scalp-pain always began in one and the same spot, and that not one to which any anatomical peculiarities attach. Was it a periosteal pain, and due to changes (neuritis?) in some ganglia, or other peripheral nerve-organ? Such seems the most probable hypothesis.

I could sympathize much with my patient, having often experienced pain of a somewhat similar kind. From my own observations, I can quite confirm the accuracy of his distinction between pains which are like forked-lightning, and those to which the comparison of sheet-lightning may be applied. The latter are less severe, as a rule, and always less momentary than the others. They spread over a wider area, and do not feel to run in such straight lines. Both of them differ from another kind of explosive pain, in which the shoots extend for equal distances around the centre of starting. This might be called the star-shaped pain, or bomb-shell explosion; but, if the latter term be used, it must be clearly understood that the pain denoted, although always radiating, is by no means always of any terrible degree of severity.

Irreducible Prolapse of the Rectum Treated by Amputation; Recovery.

Mr. O'Connell Raye thus writes in the *Lancet*, July 10:

A Hindoo male, aged forty-four, was admitted suffering from prolapse of the rectum of several days' duration. The protruded parts were livid and ecchymosed, with here and there isolated patches of sloughing mucous membrane. The mass was about the size of the clenched fist. The patient was in great suffering and much exhausted. He was placed under chloroform, and careful, prolonged efforts were made to reduce the prolape, but without success. The measures commonly recommended for the relief of irreducible prolapse—such as excision of strips of mucous membrane, scoring with the actual cautery, nitric acid, etc.—seemed scarcely suitable for this patient, as the bowel had been protruded for several days, and was in a very doubtful state of vitality. Mr. Raye therefore resolved to amputate the protrusion level with the encircling skin. He acknowledged that he should almost certainly have to open the recto-vesical pouch, but hoped, nevertheless, to be able to keep the peritoneum free from contamination. The parts were carefully examined lest they should contain a loop of intestine.

For the operation a Wood's hernia needle was used, armed with a stout silk ligature about two yards long. The needle was introduced along the left index finger within the protruded bowel as far as the level of the anal orifice. The point of the needle transfixed the protrusion from within, and emerged on a level with the skin. A loop of the silk was caught, and held while the needle was withdrawn within the lumen of the bowel. The bowel was again transfixed on the same level, with the needle still threaded, so that the point emerged on the external surface of the prolapsed rectum about one inch away frem the first puncture. Another loop of the silk was there similarly caught and retained. This procedure was repeated, just as in the ordinary method of ligaturing a nævus in sections, until the entire mass was included. The external loops were then cut and tied, and thus each included portion was separately secured, The next step was to amputate the mass. Expecting to meet the pouch of peritoneum, Mr. Raye began in front by carefully cutting until he came upon this structure. He dissected the pouch from its surroundings in the manner employed with the sac in some of the modern operations for radical cure of hernia. When the pouch was thus secured, it was raised out of the way and the prolapsed rectum amputated just below the transfixing ligatures. There was no hemorrhage. Two of the ligatures had transfixed the pouch. He divided these two ligatures, and as portions of the cut edges of the bowel were thus liberated, these edges were seized with Spencer Wells's clamp forceps to prevent bleeding. The prolapsed recto-vesical pouch, being now free, was drawn gently downwards a little, and its neck tied with carbolized catgut just above the point where the ligatures had passed through it. The sac was then cut off, and its pedicle allowed to slip back within the pelvis, secured by the catgut ligature. Those portions of the cut

edges of the bowel which were held in the clamp forceps were again transfixed with ligatures, which, when drawn tight, completely occluded the orifice through which the process of peritoneum had been protruding. The ring of ligatured bowel was pushed within the anal orifice, the ends of the silk ligatures hanging out for facility of removal; a morphia suppository was inserted, and the man put to bed. The operation occupied about three-quarters of an hour.

There was considerable pain for two days. On the third day the bowels were moved naturally. From the first there was no difficulty in micturition. Two ligatures were found loose on the twelfth day. Two more ligatures came away two days later on. By this time the patient felt quite well, had little or no pain on defecation, and had complete control over the action of the bowels, from which it was presumed that some portion of the sphincter remained. The calibre of the bowel was almost normal, a ring being felt where the ligatured portion lay about an inch within the anus. Whether this ring disappeared subsequently by absorption, or whether it contracted to form a stricture, Mr. Raye is unable to say, as the man absconded on the twenty-first day, some of the ligatures being still *in situ*.

A New Operation for Ptosis.

Of late years several attempts have been made to improve upon the old operation for congenital or paralytic ptosis, which merely consisted in removing a fold of skin from the lid. The principle of the operations of Dransart and Pagenstecher is to establish a connection between the lid and the occipito-frontalis muscle by means of subcutaneous cicatricial bands, got by allowing sutures to ulcerate their way out along their tracks underneath the skin. Panas (*Archives d' Ophtalmologie*, vi. 1, 1866,) has found the following operation very successful, and not followed by so much pain and swelling as Dransart's, of which, however, he admits the efficiency. An assistant applies his hand to the patient's forehead to prevent the drawing down of the skin of the lid, by which the natural arrangement of the tissues would be interfered with, and the precision of the necessary incisions affected. He first begins an incision along the line of the upper border of the tarsus. This incision is, however, not continued along the whole of that line, but interrupted so as to leave a central portion of one-third inch in extent uncut. A second horizontal incision, with a slight convexity upwards, and not quite an inch in extent, is made in the position of the fold of separation between the eyebrow and lid, and therefore about over the orbital margin. The second incision must involve all the tissues down to the periosteum, and by means of two short vertical incisions be joined with the inner extremity of the external portion and outer extremity of the internal portion of the lower incision. Finally, a third incision is made parallel to the second, and somewhat more than an inch in length, along the upper border of the eyebrow and passing down to the periosteum. The little peninsula of skin and muscle included between the middle and lower horizontal and the two vertical incisions is next dissected free from the tarsus down to its ciliary border, taking care not to interfere with the suspensory ligament of the lid. The bridge between the middle and upper incisions is then undermined, whilst avoiding periosteum and suspensory ligaments. When this has been done, the dissected flap is pressed up underneath the undermined bridge, and attached by three sutures to the upper edge of the upper incision. To prevent the traction on this medial flap producing ectropion, a suture is put in at each side, by which means the conjunctiva and suspensory ligament of the lid are united to the edges of the upper incision. Panas claims in this way to have introduced an operation which meets the indications required by a shortening of the lid to the desired extent by the raising of its tarsal portion, and causing the insertion of the occipito-frontalis muscle to occupy the position and assume the function of the absent or paralyzed levator.

Cocaine for Burns, Blisters, etc.

Before the Richmond Medical and Surgical Society, Dr. Landon B. Edwards said that he wished to emphasize the special value of cocaine in the treatment of *burns*. Recently he was called to a lady who had turned over a kettle of boiling water on one of her ankles and foot. When he arrived, the blisters that were unbroken apparently contained as much as three gills or more of serum, and the lady was suffering intensely. A number of the blisters were broken in removing her stocking. She was wearing very low-cut house-slippers at the time of the accident. She wanted something "to take the fire out." He had with him two drachms of a four per cent. solution of cocaine muriate (gr. v. to ʒij of water) which he applied with a camel's hair pencil to th

raw surfaces, and around the margins of the raised blisters. In twenty or thirty minutes she was easy. He then prescribed:

℞. Muriate of cocaine, ℈iv.
Distilled water, ℥iv.
M. S.—Apply enough to wet the raw surfaces when painful.

The pain was kept constantly relieved by these applications, made at varying intervals of from two to six hours. The next morning the lady put on her stocking—which broke other blisters—and poured the solution on it over the injured parts. Thus, against advice, however, she went about her house attending to household duties, and said she didn't need the doctor. In a few days she was thoroughly well, with some slight cicatrices. He spoke also of a cook who severely burned her arm, which he treated in pretty much the same manner, and with like good results. He further mentioned the case of a book-keeper, who by boat-rowing severely blistered his hands. The raw surfaces in the palms, due to the breaking of the blisters, were so painful as to prevent the use of the pen or handling his books. By keeping the sores painted with a three per cent. solution of cocaine, he was able to attend to his duties without pain. In many like injuries cocaine is extremely serviceable, and we should keep it at the head of our lists of "ready-relievers," in cases of cuts, abrasions, etc.

Cardiac Neurosis in Connection with Ovarian and Uterine Disease.

Dr. H. J. Boldt thus concludes a paper in the *American Journal of Obstetrics* for August:

There are a large number of patients afflicted with uterine or ovarian disorders who also suffer from nervous heart affections, and some cases who give only a history of the latter, in whom this will be found dependent on the former disorder, as is well illustrated by example No. III. The symptoms of the affection do not differ from the cardiac neurosis dependent on other causes.

It is necessary to make a careful examination, in justice to the patient, of the reproductive organs, if no other *positive* cause can be found to account for the neurosis.

That grave organic lesions may be suspected by only a superficial examination, when the condition is but a nervous imitation of disease, is well illustrated by numerous citations of cases. Flint's* case is a good example. When the neurosis is due to ovarian lesion, it is usually the left ovary which produces the mischief, as has already been pointed out by Dr. J. Milner Fothergill, and coincides with my own observations.

In conclusion I would say that the cases cited were such in which the reflex cardiac neurosis caused the greatest inconvenience to the patients when they presented themselves for treatment; and that an argument that treatment for the neurosis directed to other organs than the pelvic, would in these cases not hold good, as they were thoroughly tested previously; also that the observations are not confined to a few patients, but extend over a series of nearly two thousand patients taken as they came, after beginning my own investigation, and it is from this list that I take my per centum.

* Pepper's "System of Med.," vol. iii., p. 750.

The Treatment of Rabies with Hoang-nan.

According to the *Gazette Médicale de Nantes*, twenty-four cases of rabies have been treated with hoang-nan by Dr. Barthélemy and several other medical men of that city or of the department. The first case so treated was in the month of March, 1882, the last in April, 1885. Ten times, at least, the bites, which were most frequently multiple, were situated on the hands, once on the hand and on the face. In the majority of cases cauterization was completely omitted, or practiced several hours, or even several days after, with agents little active, such as liquid ammonia or a solution of carbolic acid. Two of the patients, who were closely observed by Dr. Barthélemy—viz., a man of thirty and a lad of sixteen—presented symptoms of rabic mania: persistent insomnia, anxiety, nocturnal agitation, the desire to run, hallucinations, barking, etc. However, none of these persons felt hydrophobic, nor have any of them, to this date, succumbed. The duration of this preventive treatment was, on an average, twelve days. The total dose of the powder of hoang-nan ingested during this time, varied in adults from six to eight grammes. It was scarcely necessary to go beyond one gramme per day to obtain the physiological effects of the medicine—exaggeration of the reflexes, cramps, rigidity, slight trismus. The maximum dose was arrived at progressively, and in some cases the treatment was terminated by gradually decreasing doses. From the above cases the author deduces either that rabies is communicated much more rarely to the human species than is generally admitted, or that the hoang-nan, administered progressively to the physiologi-

cal effects *during the period of incubation*, sufficiently and efficaciously modifies the nervous system and the entire economy to prevent the evolution of the rabic virus.

A Peculiar Accident Following an Operation for Hydrocele.

MM. Boursier and Loumeau relate the following case in the *Journal de Médecine de Bordeaux*, of June 20, 1886:

A strong, healthy man, aged 44, of good antecedents, and presenting no history, hereditary or personal, of nervous troubles, entered hospital on account of a hydrocele. There was nothing peculiar to note about the hydrocele, which occupied the right side of the scrotum, and upon which it was decided to operate by evacuation of the fluid and injection of dilute tincture of iodine. Immediately upon the injection of the first few drops the patient complained of pain in the cord and groin, and of cramps in the right forearm. The hand was seen to be slightly flexed toward the ulnar side, the little and ring fingers were completely flexed, while the middle finger and index had their two terminal phalanges extended on the first, this one being flexed on the metacarpus; the thumb was flexed and drawn toward the other fingers. In a short time the same convulsive movement took place in the left hand. There were neither convulsions nor syncope, but the painful contractions persisted for some minutes, and then gave way, the index and middle finger becoming completely flexed, the hand also being flexed on the forearm. On a question being addressed to the patient it was found that he could not articulate, the muscles supplied by the hypoglossal being also contracted. The latter soon disappeared, but the contractions in the forearms and hands persisted for nearly an hour. The authors regarded the spasms as of reflex origin, but were unable to explain their localization to the muscles supplied by the median, ulnar, and hypoglossal nerves.

Habitual Miscarriage Successfully Treated with Tincture of Chloride of Iron and Chlorate of Potassium.

Dr. W. J. Strother thus writes to *Gaillard's Medical Journal:*

I send you a report of an interesting case occurring in my practice; not claiming any credit to myself, however, for the plan of treatment adopted, as I had seen the report of a similar case and its successful treatment in one of the medical journals.

Mrs. H., thirty years of age, married seven years. Has had six or seven miscarriages, these generally occurring from the third to the fifth month. Hemorrhage would begin about the second month, and recur every four days until the fœtus was expelled.

She had a miscarriage about fifteen months ago, at which I was in attendance. Remembering reading of a case of miscarriage reported as being due to fatty degeneration of the placenta, in which tincture of chloride of iron and chlorate of potassium were employed with success in the succeeding pregnancy, I examined the placenta and found it almost one mass of fat. At the beginning of the patient's next pregnancy, therefore, I ordered the following mixture:

℞.	Tinct. ferri chlor.,	f℥iij.	
	Potass. chlorat.,	℥iij.	
	Glycerinæ,	f℥j.	
	Aquæ,	f℥v.	M.

S.—Teaspoonful three times a day.

She took this regularly almost every day until she was delivered, at full term, of a healthy male child. About the third month she had a slight "show," but the hemorrhage never returned.

Wash-leather Skin.

Dr. P. H. Emerson, in a recent number of the *British Medical Journal*, discusses a peculiar condition of the skin, in which certain metals mark it with dark lines. Dr. Ferrier, in 1879, termed this condition "wash-leather skin." After a careful analysis of fifty cases observed in the wards of Kings College Hospital, Dr. Emerson draws the following conclusions:

1. As a rule, wash-leather skin does not occur in the healthy.

2. It does not occur in many diseases, being observed only four times in fifty cases of illness.

3. It occurs in patients suffering, as a rule, from diseases which directly or indirectly affect either the trophic or the secretory nerves of the skin, such as renal disease, phthisis, erysipelas, and hemiplegia.

4. Silver is the best metal to use for bringing out the marks.

5. It may precede bed-sores.

6. It is of diagnostic value in testing the vitality of the skin, and the site for experiment is the lumbo-sacro-gluteal region.

Dr. Emerson thinks it probable that this peculiar condition of the skin may be the combined result of (*a*) general malnutrition, and (*b*) injury to the trophic fibres of cutaneous nerves from pressure, and consequent changes in the skin due to an hydræmic paralysis leading to degenerative changes.

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VACCINATION WITH ANIMAL LYMPH.

Basing his conclusions upon a large number of observations extending over a period of five years, and also deducing them from the experience of large institutions, where vaccination is compulsory and carried on under the direction of the German government, Dr. Riesel, in Halle, establishes the following as guiding principles in the vaccination with animal lymph (*Deutsch. Med. Zeit.*, July 19, 1886):

The Italian as well as the Dutch method have no advantages whatever; the best is Reissner's procedure, consisting in scraping off the ripe pustule with a sharp spoon under strong pressure, and while stretching the skin to the utmost so as to cause a state of anæmia of the latter at the time the lymph is thus obtained from the animal.

The dry lymph powder, while remaining in full strength for a very short time longer than the fluid lymph, has the disadvantage of forcing the operator always to prepare the lymph fresh each time he desires to vaccinate, a loss of time, especially of great moment in institutions where a large number of individuals have to be vaccinated.

Glycerine, whose property to protect animal tissues against decomposition, has also proved amenable in the preservation of animal lymph, the various manners of employing it for this purpose being but of subordinate importance.

Additions of aseptic material to glycerine lymph are useless in small and hurtful in larger quantities, for in the latter case they also destroy the activity of the virus, while in the first they do not protect.

Animal lymph must be employed in such a way that the operation is performed with a lancet as dull as possible, and superficial, not bleeding, lengthwise scratches are produced by scraping rather than by cutting.

The local phenomena of inflammation which accompany the protecting vaccine pustule, due to animal lymph, frequently appear to the uninitiated as erysipelatous in character, though they are nothing of the kind.

The areola of the genuine vaccine pustule has nothing in common with erysipelas; the first runs a typical concentric course, the second not.

Erysipelas has a period of incubation of from 15 to 61 hours; the so-called early erysipelas is from 16 to 24 hours.

Against accidental infection of the vaccination wound or of the destroyed pustules, animal lymph offers as little protection as humanized lymph.

Cleanliness of the body, the clothing, and the residence of the person vaccinated, and also of the hands and the instruments of the operator, and of the room in which the vaccination is performed, are of the utmost importance, and serve as the only aseptic precautions which can be observed.

In first vaccinations the strict adherence to the rules just mentioned will always be attended with success.

A NEW ACUTE ERUPTIVE DISEASE.

During the last ten years American practicing physicians will often have been not a little puzzled when called upon to make a differential diagnosis between rubeola, morbilli, and scarlatina. We have occasionally seen cases which partly resembled measles and others again which looked more like scarlet fever, while both evinced all the special peculiarities of rubeola. In some of these cases there was no doubt of the disease being rubeola, for the child had already suffered from morbilli as well as from scarlatina.

In this respect an article published by Dr. Nich. Filatow, of Russia (*Arch. f. Kinderheilk*, Bd. vii., H. 4), is of importance and great interest.

F. distinguishes a rubeola morbillosa, that form which is described in systematic works on medicine, and which mostly resembles morbilli, and another variety less known and less frequent, and appearing more like scarlatina: *rubeola scarlatinosa*. This is a special, acute, infectious, and contagious exanthematous disease of its own, which is characterized by an eruption resembling that of scarlet fever, but which differs from the latter by its uniformly mild course, and by the peculiarities of its contagion. The symptoms are identical with that of the mildest contagion; the eruption has a pale rose-color, is confluent, thickly punctated or marmorated, and *never attacks nose, lips,* and *chin*. Temperature 100° to 101°, moderate pharyngeal redness; no angina. Duration of the eruption sometimes but a few hours, generally from 2 to 3 days, and without being followed by desquamation.

The proof for his assertions F. finds first in the analogy of measles "rötheln") rubeola morbillosa), variola, varicella, etc., and next in the fact that he himself observed several cases where children after suffering from the disease were later attacked by scarlatina.

To be sure, his statement cannot be accepted as final. Cases happen where one attack of scarlet fever does not insure immunity against others, and it may be possible that his scarlatinal form of rubeola is simply a modified variety of the latter. Still, we ourselves feel inclined to F.'s view, and await the observation of those whose position as physicians in charge of large children's hospitals give them an opportunity to determine the question.

ECLAMPSIA.

Our knowledge of eclampsia is not yet very great. If an individual, suffering from some demonstrable organic lesion, is seized with convulsions, which, however, do not frequently return after longer or shorter intervals, we call the disease eclampsia. The definition shows that we consider it the same malady as epilepsy, only that in the latter that permanent alteration has developed in the brain which gives rise to repeated seizures.

With such little knowledge of an important and but too often fatal complaint, it is only natural that we welcome any new information. After years of study Dr. Jüegeur, of Berlin, seems to have made an important discovery in this direction. At the July meeting of the Berlin Medical Society (*Deutsch. Med. Zeit.*, July 19, 1886,) Jüegeur remarked that one lesion he had invariably met with in eclampsia, viz., hemorrhage of the liver. It begins at the periphery and thence spreads and is accompanied by destruction of the hepatic parenchyma. In consequence of this latter process small particles of liver-tissue are found in the blood, and their presence may be demonstrated at any time by a microscopical examination of the blood contained in the right ventricle of the heart of persons who died with the disease.

In all fatal cases some fatty degeneration of the vessels of the brain was found, and fat particles had emigrated or given rise to embolism. In individuals with a very moderate amount of adipose tissue hyaline masses take the place of fat.

J. believes that the lesion of the liver is the main point in eclampsia, while to us it seems as if the morbid appearances described seem to indicate a primary affection of the vaso-motor nervous system. In conclusion, we may mention that long since Virchow proved the existence of fat emboli in the kidneys in cases of eclampsia. This is an interesting subject well worthy of further investigation.

GRATUITOUS MEDICAL SERVICE.

One of the greatest evils in the profession to-day in large cities is the abuse of medical charity. We, of course, do not mean to say that those who are honestly unable to pay for it should be denied the benefit of medical treatment; but we do say most emphatically that a large proportion of those who avail themselves of the free services of dispensaries are abundantly able to pay for medical services, and it is only a spirit of contemptible meanness, unworthy of a true man or woman, that induces them thus to accept, as a charity, that for which they are fully able to pay.

The remedy lies in restricting the service of dispensaries to those who furnish evidence that they are unable to pay a physician for his services. Do this, and give the young man a chance.

CONSULTANTS AND GENERAL PRACTITIONERS.

"A medical association is being formed in London, the members of which bind themselves to call into consultation only such consulting practitioners as are known to confine themselves to purely consulting practice."

Every large city in this country should have a similar association. It is a heartless shame for the *ancient* and distinguished members of our profession to engage in active practice for the smallest fees, when, by so doing, they are ruining the prospects of capable and aspiring younger men. When they have wealth and eminence, they should retire from active practice, limit themselves to consultations, and thus give the young men a chance. It can be only a mean spirit of avarice that thus keeps them in harness, when they have every right and reason to be in repose.

NOTES AND COMMENTS.

Ocular Disturbances Caused by Dental Irritation.

At the recent Ophthalmological Congress in Paris, M. Paul Redard described a number of cases in which dental affections were evidently the source of ocular disturbance, such as glaucoma, amaurosis, amblyopia, and cloudy vision. In asthenopia, without any apparent cause, the teeth should always be examined. M. Gayet mentioned a case in which disturbance was produced by a tooth fixed on a pivot; the symptoms appeared and disappeared according as the tooth was removed or replaced. M. Fieuzal had observed so many of these cases of correlation between ocular and dental affections, that he had urged that a dental clinic should be annexed to the Quinze Vingts Hospital for blind people. M. Suarez and M. Galezowski mentioned similar facts. M. Javal mentioned a series of cases, of an inverse order, in which dental disturbance disappeared after operating for glaucoma.

Iodism Cured by Sulphanilic Acid.

As iodism is one of the unpleasant sequelæ that will, sometimes, interfere with and complicate and even debar the use of the iodides, we should know how to relieve it. The *Medical Chronicle* says that the extremely depressing effect and severe catarrhal symptoms occasionally produced by the administration of iodides, and known as iodism, have been explained by Ehrlich as due to the fact that nitrates in the presence of weak acids set free the iodine, and on this theory he has experimented with sulphanilic acid as a remedy for the symptoms produced. This substance, having a powerful affinity for nitric acid, possibly prevents this reaction, since, when given in doses of 4, 5, or 6 grains, in half the cases the iodism vanished as if by magic. As much as 7 grains has been given. To render it soluble, one part of bicarbonate of sodium is added to the water used for each 1½ parts of suphanilic acid.

Boric Acid Tooth Powder.

For various obvious reasons, a tooth powder that is antiseptic has advantages over one that is not. Hence we give the following, which Dr. A. D. MacGregor (*Brit. Med. Jour.*, July 10,) has used for years:

Boric acid, finely powdered, 40 grains; chlorate of potassium, ʒss; powdered guaiacum, 20 grains; prepared chalk, ʒi; powdered carbonate of magnesia, to ʒj; otto of roses, half a drop. The boric acid in solution gets between the teeth and the edges of the gums, and there it discharges its antiseptic functions; the chlorate and guaiacum contribute their quota to the benefit of the gums and mucous membrane generally; the chalk is the insoluble powder to detach the particles of tartar which may be present, and the magnesia the more soluble soft powder which cannot harm the softest enamel.

Indurated Chancre of the Ear.

A woman, aged forty-two, was admitted into the St. Louis Hospital, under the care of M. Fournier, on November 21, 1885. She

said that at the beginning of September she had noticed a small lump behind one of her ears. This gradually became larger, in spite of poulticing and blistering. On admission, on each side of the auriculo-mastoidean sulcus was a prominent coppery-red mass, with ulceration between the two. The glands behind the sterno-mastoid muscle were enlarged. There were syphilitic erosions on the velum, and some pigmented stains on the body. On November 24, roseola appeared, and an erosive syphilide on the genitals. The woman could give no explanation of contagion, except that her husband might have kissed her behind the ear. On examination of the husband, he was found to be suffering from syphilitic patches of the mouth and tongue, enlarged glands, and roseola.

Traumatic Tetanus Treated by Venesection and Morphine.

At a meeting of the Societatea Medico-Militara din Jasi (the Jassy Military Medical Society) Dr. Acontz (*Spitalul*, April, 1886) related a curious case of a robust trooper who, having received a blow in the hepatic region, instantly fell insensible and remained so for two hours, by the end of which time there suddenly appeared tetanus (trismus). A venesection was performed, and leeches were applied to the hepatic region. Both of these means, however, failed to rouse the patient. He came round only after a hypodermic injection of five centigrammes of hydrochlorate of morphia. The further treatment was expectant. The man improved from day to day, and after a ten days' stay left the hospital quite well.

Syphilitic Chancre of the Eyebrow.

A man, aged forty-two, was admitted into the Lariboisière Hospital, under the care of M. Siredey, for paralysis of the fingers, probably due to lead-poisoning. On examining the skin, he was found to be suffering from a secondary syphilide. The patient said he had not had sexual intercourse for a year, that he had been in another hospital six weeks before, when the doctor there said he had mucous patches on the scrotum and examined the penis, but found no trace of a sore. On examination, an indurated cicatrix was found on the left eyebrow, and the corresponding pre-auricular gland was enlarged. Afterwards, syphilitic erosions appeared in the mouth. The man stated that, during a quarrel three months previously, he had been bitten by his antagonist on the left eyebrow.

An Enormous Tumor.

The great size of a tumor will often cause a patient to hesitate about consenting to its removal, for in his eyes the danger is in proportion to the size. Of course we know that this is not so. In the *Central. f. Chirurg.*, Dr. W. Stankiewicz reports the case of a patient who had a tumor in the lumbar region, which had been growing for fourteen years and was of such a size that it hung down to the knees. Its base was forty-four inches in circumference. It was removed by operation, and weighed, after extirpation, forty pounds. Unfortunately the result is not stated, so that we are left in the dark as to the effect of the shock to the system of the removal of so large a growth.

To Prevent Mammary Abscess.

Although Dr. Goodell ridicules the idea of *aborting* mammary abscesses, which he does not think can be done, yet Mr. Miall (*Brit. Med. Journal*) says that when mammary abscess is on the point of forming, he has frequently seen all the symptoms rapidly disappear in a few hours, under the influence of fomentations with hot water and carbonate of ammonia. He uses an ounce of the carbonate in a pint of water, and when solution is accomplished the temperature of the fluid will be hardly too high for fomentation to be commenced, with cloths dipped in the liquid. He applies them for from half an hour to two hours, at the same time protecting the nipples. He has often had immediate relief, and seldom requires to make more than three applications.

Serious Oral Bleeding after a Leech.

In the *Vratch*, No. 12, 1886, p. 214, Dr. E. N. Mikhnevitch describes the case of a middle-aged, moderately nourished, non-hæmophilic peasant woman, who was brought to him with all the usual symptoms of severe acute anæmia, and with incessant spitting of blood. According to her statement, having suffered for three days from toothache, she applied a leech to her gum. The leech fell off, but since then (more than twenty-four hours) the wound was bleeding profusely all the time, in spite of the use of cold and a solution of perchloride of iron. The hemorrhage was immediately arrested by plugging with styptic cotton-wool (*gossypium ferratum*).

Blood Changes in Endarteritis.

It is a somewhat interesting question whether the blood itself is affected by mor-

bid changes in the blood-vessels. Some light seems to be thrown upon the subject by the case which Dr. Simeon T. Clark reports in the *Buffalo M. and S. Jour.* for August. The case was one of "chronic endarteritis," and he says that it proves to his mind that, in endarteritis, changes takes place primarily in the intima of the vessels; and after the blood-making membrane becomes somewhat generally affected, the blood itself becomes a changed fluid, tending to deposits, clots, thrombi, pigmentary immigrations, and even exudates of adventitious products.

Phlebotomy in Puerperal Eclampsia.

In a paper before the Clinical Society of Maryland, Dr. Wilmer Brinton, of Baltimore, describes several cases of puerperal eclampsia. His principal reliance was upon the lancet, and the results were satisfactory. The late Dr. Isdell, of Dublin, published, many years ago, a pamphlet in which he advocated phlebotomy in eclampsia, and enumerated a number of cases in which he got the best results. Many of Dr. Isdell's cases occurred in strong countrywomen, and probably the same success would not have attended similar treatment of city women.

Quinine in Whooping-Cough.

This is not a new recommendation, but cumulative evidence serves to entitle it to an estimable place in our consideration. Dr. Ernest M. Lyon, of Newark, N. J., writes to an exchange that he has used it extensively and successfully in his practice, as follows:

℞. Quiniæ bisulph., ʒj.
Elix. simplic. rub., U. S. P., ℥jss.
M. Sig.—Teaspoonful to a child aged five years and upwards.

He gives it every three or four hours until cinchonism ensues, and keeps the patient under its influence, his guide for its administration being the frequency and severity of the paroxysms.

Subpreputial Medication.

The *Medical World* claims advantages in the treatment of gonorrhœa by what is termed subpreputial medication. The method consists in rubbing up morphine and cocaine in lanolin (wool-fat), and inserting it under the prepuce after thorough cleansing. Dr. Taylor claims that this at once relieves all pain by producing complete numbness of the whole organ. He claims that the advantage of lanolin over other vehicles is the readiness with which it is absorbed.

Fatal Effect of Collodion in Small-pox.

M. Comby related a case before the Société de Chirurgie of Paris of a woman suffering from small-pox, and whose face was covered with a solution of collodion to avoid the cicatrices. The eruption was at first retarded, but soon diffuse suppuration took place under the collodion, and the face was converted into a vast suppurating sore, as that which is seen usually after a burn. The patient succumbed after a few days in great pain and high fever, and the post-mortem revealing nothing abnormal, death was attributed to the topical application.

Calabar Bean in Epilepsy.

Herr Rush, of Fritslar, recommends Calabar bean in epilepsy, in cases where other drugs have failed. He records some successful cases in the *Deutsche Med. Zeitung:*

℞. Ext. Calabar bean, gr. 7½.
Spirit etheris, ♏ 80.
Aq. menth. pip., ♏ 300.

Five to ten drops three times a day for children; eight to fifteen for adults. For children he begins with five drops, and increases the dose by one drop daily until the maximum of ten drops is reached. He then diminishes the dose by one drop daily until the initial dose is reached.

It may be tried, but we doubt (from experience) its efficacy.

Treatment of Bruises.

The *St. Louis Med. and Surg. Jour.* says that for bruises there is nothing to compare with the tincture or a strong infusion of *capsicum annuum* mixed with an equal bulk of mucilage of gum-arabic, and with the addition of a few drops of glycerine. This should be painted all over the bruised surface with a camel's hair pencil and allowed to dry on, a second or third coating being applied as soon as the first is dry. If done immediately after the injury is inflicted, this treatment will almost invariably prevent the blackening of the bruised tissue. The same remedy has no equal in rheumatic, sore, or stiff neck.

Rheumatic Urethritis.

Rheumatic urethritis is what M. P. Riel (*Lyon Médicale*, March 14, 21, 1866,) names a form of urethritis occurring in the course of rheumatism, accompanied by a discharge of purulent fluid and other symptoms common to gonorrhœa, but differing from it in the complete absence of gonococci. M. Riel depends upon the gonococcus for his diagnosis of specific urethritis. He reports two cases of this form of urethritis, but hesi-

tates to ascribe them solely to the rheumatism, and assumes that there must be certain as yet undiscovered organisms in the secretion to render it purulent.

White Clay in Epididymitis.

According to the *Journal de Med. de Paris*, March 28, 1886, white clay, such as is used by sculptors, has been used in Russia with much success in many cases of gonorrhœal epididymitis.

It is made into a soft mass, spread upon a square piece of linen cloth, and applied to the whole scrotum.

Boskine attributes the therapeutic effect of the *argile*, as it is called, to its refrigerating and metallo-therapeutic properties.

Apone: A New Kind of Pain Expeller.

As we imagine from its counter-irritant action, it would be very likely to relieve pain, we note that the following is said to be the mode of preparation of a sort of pain-killer recommended by Poulet (*Pharm. Zeit.*) under the name of *apone:*

Capsicum	20 parts.
Water of ammonia	10 parts.
Oil of thyme	1 part.
Chloral	1 part.
Alcohol, 60%	100 parts.

Digest the capsicum with the alcohol and ammonia during four weeks, filter, and add other ingredients.

Snuffs for Coryza.

Rabon (*Deutsche Med. Wochen.*) recommends the following powders to be used as snuff in coryza:

1.	Menthol,	2 parts.
	Roasted coffee,	50 "
	White sugar,	50 "
	Mix, and take as snuff.	
2.	Cocaine hydrochlorate,	1 part.
	Roasted coffee,	
	White sugar,	āā 50 "
	Mix, and use as before.	

Treatment of Aphthæ of the Vulva.

Sarazin, in cases of aphthæ of the vulva occurring in children recovering from measles, recommends the following (*L'Union Medicale*, June 26): By means of a badger-hair brush a layer of iodoform to be painted on the inflamed parts, and a piece of lint covered with iodoform to be inserted between the lips of the vulva. The powder is to be removed every twenty-four hours until recovery. Appropriate internal treatment should also be given.

Lotion for Gouty Joint.

Dr. Rothe (*Memorabilien*) speaks highly of the following solution in an attack of acute gout: Liquor plumbi acetat., 15 parts; spiritus vini, 25 parts; tr. opii ammoniat., 5 parts; aq. font., 300 parts. Having first used frequent cold douches, he applies compresses wet with the above solution and covered with mackintosh. The treatment gives great relief from pain, and shortens the attack.

Abortion.

Dr. Fry recently exhibited to the St. Louis Medical Society some bits of rusty wire removed from the vagina of a patient who had aborted at the third month. The patient had been under the care of an ignorant abortionist. Dr. Fry supposed that this man had endeavored to introduce the wire into the uterus, but the wire having become entangled in the cervix, was cut off and left there, after he had in vain endeavored to extricate it.

Application for Warts.

The following formula, a modification of that recommended by M. Vigier for corns, is largely used by Vidal:

℞.	Acid. salicylici,	1 gramme.
	Alcohol, 90°,	1 "
	Ether,	2½ grammes.
	Collodion,	5 "

M. The solution should be painted over the affected surface each day.

Painful Dentition.

The following is said (*L'Union Medicale*) to be an excellent preparation in painful dentition:

Cocaine hydrochlorate,	
Sodium borate,	āā gr. iv.
Syrup of althæa,	♏ 64.
Syrup of poppy to make,	♏ 100.

A little to be rubbed on the gums several times a day.

Catarrhal Headache.

Iodide of potassium is said to quickly relieve the dull headache so often accompanying an ordinary cold in the head. Two grains may be dissolved in a glass-full of water, which is to be taken in little sips during half an hour. Dr. Davis recommends this simple remedy, and says he has hardly ever known it to fail.

Urticaria and Pruritus.

Menthol is said to relieve the itching and

cure the disease. In pruritus ani, and in eczema, the parts should be moistened with menthol solution, containing from five to ten grains of menthol to the ounce of water.

Treatment of Diabetes by Massage.

At the Medical Congress held recently at Wiesbaden, Herr Finkler recommended treating diabetes by massage. He tested this method on a considerable number of patients, and ascertained that glycosuria is lessened by it, even when the patients have a mixed diet. A short time after the treatment begins the patients perspire profusely; they also increase in weight.

Warm Medicated Enema for Acute Menstrual Pains.

For the relief of the violent pains that in some women precede the menstrual flow, Dr. Meniere (*Rivista Balear*) gives a warm water enema containing 30 grains of chloral and 30 grains of bromide of potassium. For young women only half the above quantities should be prescribed.

Glycerole for Cutaneous Pruritus.

R.	Acidi carbolici,	gtts. xv.
	Sodii biboratis,	3 grammes.
	Glycerinæ,	30 "

M. Apply with a brush over the pruriginous surfaces.

News and Miscellany.

Canada Medical Association.

At the nineteenth annual meeting, held in Quebec, August 18 and 19, the following papers were read:

"Keratoscopy as a Means of Diagnosis in Astigmatism," by Dr. Desjardins, of Montreal.

"Tracheotomy in Membranous Laryngitis," by Dr. James Bell, of Montreal.

"Treatment of Tuberculous Glands of the Neck," by Dr. Fenwick, of Montreal.

"Some Details of Uterine and Ovarian Operations," by Dr. Trenholme, of Montreal.

"Excision of the Tarsus in Tuberculous Disease of the Bone," by Dr. Shepherd, of Montreal.

"Evacuation of an Abdominal Hydatid Cyst," by Dr. Kerr, of Winnipeg.

Dr. Kerr reported two cases of "Gunshot Wound of the Hip-joint."

"The Treatment of Acute Purulent Ophthalmia," by Dr. Buller, of Montreal.

"Ainhum," by Dr. Shepherd, of Montreal.

Dr. Fenwick, of Montreal, reported a case of "Amputation at the Shoulder-joint for Myelo-sarcoma of the Arm."

Dr. A. Lapthorn-Smith read a paper on "Alexander's Operation, and the Treatment of Displacements of the Uterus."

OFFICERS ELECTED FOR NEXT YEAR:

President—Dr. J. E. Graham, of Toronto.

Vice-Presidents—For Quebec, Dr. Russell; for Ontario, Dr. Dupuis; for Nova Scotia, Dr. Wickwire; for New Brunswick, Dr. Currie; for Manitoba, Dr. Crowther.

Local Secretaries—For Quebec, Dr. J. Bell; for Ontario, Dr. McKeough; for Nova Scotia, Dr. Trueman; for New Brunswick, Dr. Lunam; for Manitoba, Dr. Kerr.

Place of Next Meeting—Hamilton; Chairman of Committee of Arrangements, Dr. Malloch.

The Population of Paris.

The *London Lancet* says that the rate of increase of population does not appear to be governed by any fixed laws. Paris has only added 16,000 to her population in the course of five years. Is this a matter for congratulation, or the reverse? Looking at the state of poverty in the gayest city in the world, we think that Paris is to be congratulated on her want of fecundity. But, regarded in another light, this slow increase may not be a favorable condition. A population that neither increases nor diminishes may be vigorous and capable of holding its own in the international struggle of existence, but the chances are against this supposition. Excessive fecundity, on the other hand, may not be a spring or sign of strength. Too rapid growth taxes the resources of a nation, and may prove too much for them, thus becoming a source of weakness. A large population of sickly or puny individuals living in a fertile country would soon be exterminated; for unopposed strength knows no peaceful international laws. The slow increase of population in Paris need excite no apprehension if the health of her individuals is not below the normal. Indeed, nothing can be learned from the mere rate of growth of a population as to its state of health. Moreover, we cannot judge accurately of the strength of a nation by the state of its urban population. Fluctuation is rampant in the metropolis of most countries; the numbers may remain the same. Cities are characterized by the presence of the greatest and hardest workers, and any falling out of the

ranks of these is quickly replaced by those who can take their place.

Prehistoric Dentistry.

Dr. Marter, of Rome, has for some time past been devoting considerable time to examining the skulls in the various museums in Italy, and in Etruscan and Roman tombs, and he has given an account of his investigations in the *Independent Practitioner*. In the ruins of one of the Etruscan tombs, about the date 500 B. C., he found a partial denture. It was an arrangement for holding in position three upper artificial teeth by banding them to the adjoining natural teeth. These teeth were carved out of some large animal's teeth. Another denture found in an old Roman tomb consists of two natural teeth fastened by means of soft gold bands to the contiguous teeth. The most recently opened and oldest Etruscan tomb yet discovered in Italy was lately excavated at Capadimonti; this tomb belongs to the sixth century B. C., and amongst several articles of jewelry a denture, very similar to those above described, was found. Dr. Marter was unable to discover any stopped teeth, although many cases of caries and other dental diseases presented themselves. It is certain that dentistry must have been extensively practiced in the early history of the world, and that gold must have been used largely; otherwise the early Greek or Roman legislators would not have mentioned the matter in the celebrated laws of the twelve tables. Law 5th, de Jure Sacrorum, is as follows: "Quoi auro dentes vincti sicut in cum ollo sepelire, se frande esto."

The Brain of Gambetta.

M. Duval (Director of the Laboratory of Anthropology) has recently given to the Society of Anthropology at Paris a detailed description of the external configuration of the brain of Gambetta. He draws special attention to the fact that the cortical structure in the neighborhood of Broca's convolution has become markedly augmented. Usually this part of the brain assumes the form of an M, the two vertical limbs or sulci enclosing a small valve-like portion in the shape of a V. In the brain of Gambetta, however, as has been noted in other cases as well, this V-shaped portion has become doubled on itself, and assumed the form of a W instead of a V. When we recall the fact that Broca, in his memoirs, attributes to this part of the cerebral cortex (left or right-sided, according as the individual is right or left handed) the function of articulate language, the unusual development of this convolution in Gambetta and others confirms, to a certain extent, this opinion now generally accepted. Gambetta was a great orator, his memory for words being most remarkable. He had acquired a rapid and most exact method of expressing his ideas. It, is therefore, somewhat admissible to associate his great oratorical power with this increased growth of cortical tissue in the neighborhood of Broca's convolution.

Medicine in the Middle Ages.

Before the Abernethian Society of London (July 8th), Mr. Henry Power, F. R. C. S., traced the gradual growth of medical science from the Arabic and Greek physicians up to the time of the then learned Spanish schools, and later to those of France, Italy, and Vienna. He showed how the restrictions for the practice of medicine enacted by these schools were far more stringent than in the present day, and especially with regard to the title of Doctor, a subject that was absorbing the attention of the medical profession. He explained that the expense and labor necessary for the attainment of this much-coveted title, would well compare with some of the higher examinations at our universities. The art of medicine, in those days, was in a far more advanced state than that of surgery, the latter being largely in the hands of so-called "specialists," men who journeyed from place to place, advertising in the street-corners their skill, and the triumphs they had achieved. The utterly absurd intricacies of the medical prescription laid the foundation for numerous quack nostrums, a baneful legacy which has been handed down to the present day. The lecturer concluded by remarking what pride each one present must feel in belonging to an institution which could trace its career back early into the Middle Ages, which had raised up men of such eminence, and which had proved such a blessing in alleviating the misery of suffering humanity.

What a Frenchman can do with a Hair.

Of Gen. von Manteuffel, the late German military governor of conquered Alsace, who hated all that was French, it is said that he once, at a public dinner, engaged in a dispute with a French diplomat, who maintained the superiority of the French workmen over the artisians of all other nations. "A thing so ugly does not exist that the skill and genius of a Frenchman cannot

make of it a thing of beauty," he said. Angered by the contradiction, the old soldier pulled a hair from his bristly gray mustache, and, handing it to the Frenchman, said curtly, "Let him make a thing of beauty out of that, then, and prove your claim." The Frenchman took the hair, and sent it in a letter to a well-known Parisian jeweler, with a statement of the case and an appeal to his patriotic pride, giving him no limit of expense in executing the order. A week later the mail from Paris brought a neat little box for the General. In it was a handsome scarf-pin made like a Prussian eagle, that held in its talons a stiff gray bristle, from either end of which dangled a tiny golden ball. One was inscribed "Alsace," and the other "Lorraine;" and on the eagle's perch were the words, "You hold them, but by a hair."

Life Among the Lepers.

We learn from a lay contemporary that the Roman Catholic missionary priest, Father Damen, who has been called the "Apostle of the Lepers," and who, some few years ago, so nobly devoted himself to assuage the terrible misery of the lepers of Hawaii, by voluntarily going to reside in their midst, has himself taken the disease, and is likely ere long to succumb to it. Lady Brassey, in her "Cruise of the *Sunbeam*," it will be recollected, wrote of the visit she paid to the leprosy island of Molokai, which is used as a leper settlement, where all the lepers in the Hawaiian Archipelago are sent, in order that this terrible, loathsome, and incurable disease may be as much restricted as possible, as follows: "In this island are many tiny children, fatherless and motherless; parents without children, husbands without wives, wives without husbands, all condemned to watch the repulsive steps by which each of their doomed fellows goes down to a loathsome death, knowing that by the same road they, too, must pass."

Ice in the Sick-room.

A correspondent of the *National Druggist* writes:

The writer's son suffered with typhoid fever during the heated term of last summer, when the temperature of the room often rose to 90° or 95°, and the patient's temperature ran up to 105° F. and over.

A number of tubs were placed in the room and kept filled with ice, and the doors kept closed. The temperature of the room sank to 80° or less, an average of 12° or 15° below the temperature of the other rooms in the house, and the cooler atmosphere not only added to the comfort of the patient, but aided in keeping down the body temperature, and materially contributed to a final recovery.

We would strongly urge the use of ice in the room as a measure of comfort and luxury for all who are confined to their beds during hot summer days.

Medical Incomes in Canada.

The *Evening Post* quotes from the *Toronto Globe* as follows: "There is only one medical man in this city who last year earned $5,000 from his profession, combined with the interest he received on his previous savings. There is not one man on the list who had $4,000, and only four who touched $3,000. When we come to the comparatively modest and moderate $2,000, we naturally conclude that we shall have a full legion. But no, we have only fourteen all told who came up to this figure. When we come to between $2,000 and $1,000, the number becomes encouragingly large. As many as fifty-one of the best-known and greatly-sought-after doctors of our city are put down under their own hands and seals as having last year lived on from $1,000 to $1,800. Some of these are professors. There remain only the unfortunates who worry along with from $800 down almost to zero. Of these, we are sorry to say, there were last year thirty-six."

Mississippi Valley Medical Society.

At the meeting held in Quincy, Ill., the following officers were elected for the ensuing year:

President—I. N. Love, M. D., St. Louis.
First Vice-President—Joseph Robbins, M. D., Quincy.
Second Vice-President—Jacob L. Geiger, M. D., St. Joseph, Mo.
Third Vice-President—T. B. Harvey, M. D., Indianapolis.
Secretary—J. L. Gray, M. D., Chicago.
Treasurer—A. H. Ohmann-Dumesnil, M. D., St. Louis.
Assistant Secretary—Edward Alcorn, Houstonville, Ky.

The Editor's Work.

The *Courier-Journal* says that some people estimate the ability of a periodical and the talent of its editors by the quantity of its original matter. It is comparatively an

easy task for a frothy writer to string out a column of words upon any and all subjects. His ideas may flow in one weak, washy, everlasting flood, and his command of the language may enable him to string them together like bunches of onions, and yet his paper may be but a meagre and poor concern. Indeed, the mere writing part of editing a paper is but a small portion of the work. The care, the time employed in selecting is more important, and the fact of a good editor is better shown by his selections than anything else, and that, we know, is half the battle. But we have said, an editor ought to be estimated, his labor understood and appreciated, by the general conduct of his paper—its tone, its uniform, consistent course, aims, manliness, dignity, and its propriety.

The Wonderful Drug Clerk.

The most satirical shot at illegible prescriptions that we have yet seen is the following from the *Medical Age:*

A gentleman received a note from his lawyer which he was unable to decipher. On his way to his office he met a friend at the door of a drug store. The friend, after vainly attempting to read the note, suggested that they step inside and hand it to the druggist, without comment. The druggist, after studying it in silence for a few minutes, stepped behind his prescription case, and in a short time returned with a bottle of medicine, duly labeled and bearing directions. When the gentleman saw his lawyer, he was informed that the note was a notice for him to call at his office between three and four p. m. of the following day. It is a pretty difficult matter to "stick" the regulation druggist.

Americans at the Meeting of the British Medical Association.

Among the Americans registered as present at the meeting, we notice the names of Drs. T. A. Emmet and Fordyce Barker, of New York; J. S. Billings, of Washington; Wm. Brodie, of Detroit; J. R. Chadwick, of Boston; N. S. Davis, of Chicago; Frank Donaldson, of Baltimore; Chas. Warrington Earle, of Chicago; H. O. Hitchcock, of Kalamazoo; F. H. Hooper, of Boston; Howard A. Kelly, of Philadelphia; W. T. Lusk, of New York; Hunter McGuire, of Richmond; R. B. Maury, of Memphis; W. H. Pancoast, of Philadelphia; W. F. Peck, of Davenport, Iowa; S. J. Radcliffe, of Washington; H. P. C. Wilson, of Baltimore; Jas. C. Wilson, of Philadelphia; and W. Gill Wylie, of New York.

Medical Novelists.

The *Boston Med. and Surg. Journal* remarks of this class of writers: Sir Henry Thompson is among the noble army of the medical novelists, or, as we might almost say, has gone over to the majority. The neurologist novelists have a fund of experience in their specialty which is often available for the purposes of fiction. But what Sir Henry finds in his specialty to adapt for such ends, is a matter of curious conjecture. The title of his latest work is announced as "All But." Theories are rife among those who have as yet failed to obtain the book, as to whether the plot turns on a case of defeated catheterization, or of the persistence of residual fragments after a lithotrity.

The "Quack" Convention.

The *St. Louis M. and S. Jour.* says that one of the most amusing things in connection with the welcome given the members of the American Medical Association by the citizens of St. Louis generally, was a window piece gotten up by Frazer, the Candy Man, at 609 Olive street. He obtained a large number of young ducks, had their skins stuffed and mounted, and seated them in chairs in a little amphitheatre. The desk in front of each was marked with a parody upon some quack nostrum, and advertisements of patent remedies graced the walls. Among the delegates was a black duckling, labeled "hoodoo." The whole was entitled "The other Convention." The hit was palpable, and enjoyed by the visiting medicos.

To Distinguish Oleomargarine from Butter.

J. Horstler recommends the following procedure: A piece of oleomargarine the size of a hazelnut is placed in a test-tube, and the end made air-tight. Into another test-tube a like quantity of butter is treated in the same way. When both test-tubes are held in the hand, the oleomargarine soon liquefies, forming a clear solution; whilst butter requires double the time for solution, and when dissolved is not so clear as the oleomargarine solution. When the tube is filled one-third full with ether, the oleomargarine is easily dissolved, and does not produce any turbidity or precipitate on the addition of alcohol. Butter when treated in like manner yields a precipitate.

Not a Doctor.

Young Wife—"There is a gentleman in the parlor. dear, who wishes to see you."

He—"Do you know who it is?"

Young wife—"You must forgive me, my dear, but that cough of yours has worried me so of late, and you take such poor care of your health, and—and O, if I were to lose you, my darling!" (Bursts into tears.)

He—"There, there, dear. Your fondness for me has inspired foolish and unneccessary fears. I'm all right; you mustn't be alarmed. But I'll see the physician, of course, just to satisfy you. Is it Dr. Pellett?"

Young Wife—"N-no, it's not a doctor; it's a—a—life insurance agent."

The Best Beef Tea She Ever Had.

A physician prescribed beef tea for a patient, giving the following directions: "Inclose the finely-chopped meat in a glass bottle, then boil by placing the whole in a pot of water." The directions were carried out as far as the boiling the bottle of meat in the pot of water was concerned. But instead of then mixing the finely-chopped boiled meat with the water and giving it to the patient, the lady gave the sick person the hot water in which the bottle was boiled, who said that she hadn't tasted anything so good in a long time.

What New York Drinks.

A recent official report by the New York health authorities states that the Croton water-shed embraces 239 square miles, and has a population of 20,000, with 1,879 dwellings and as many privies, about as many barnyards, pig-pens, and cess-pools, besides cemeteries, graveyards, slaughter-houses, and other sources of contamination, *and with no drainage except by the surface,* which conducts it to the aqueduct. Yet the Croton is the best water supply enjoyed by any large city in America or elsewhere!

Minnesota Opium.

During the year 1885 Emil Weschke experimented on the cultivation of different species of Papaver at New Ulm, Minn., and from the unripe capsules of P. somniferum prepared a quantity of opium which, in the air-dry condition, contained 2.8 per cent. of moisture, and, after drying, yielded 15.230 per cent. of morphine, 0.325 per cent. of narcotine, 0.416 per cent. of codeine, and 3.500 per cent. of meconic acid. The author does not believe that the cultivation of the poppy for the production of opium in this country would be attended with profit.

A New Adulterant of Castor Oil.

A new adulterant of castor oil is being pushed. It is sold to wholesale dealers at 62 cents per gallon for shipment at Cleveland or Chicago, and is known to the trade as "C. C. Castor Oil." The *Druggists' Circular* thinks that it is a heavy, light-colored, neutral mineral oil, worth 20 cents a gallon. Its consistence and density are similar to those of castor oil, but it has a heavy greasy odor and persistent bitter taste. It does not dissolve in alcohol, and in this way can be easily distinguished from castor oil.

An Irreparable Loss.

Railroad President.—"Don't you think that rather exorbitant, Mr. Badger—$11,000 for the loss of your wife and her diamonds in the accident?"

Mr. Badger (indignantly).—"Exorbitant? Well, I should say not. I value the diamonds at $10,000 alone."

A Pair of Centenarians.

There has recently died in St. Petersburg Madame Goruli, a contemporary of the Empress Catherine II., and a lady of the court of the Emperor Paul I. She is stated to have been 114 years old. Among those who attended her funeral was her sister, who had attained the age of 113, but who was still so robust as to be able to follow the bier on foot.

Personal.

—Dr. James R. Chadwick, of Boston, represented Harvard University at the Heidelberg Quinque-centennial.

—The Queen, upon the recommendation of Mr. Gladstone, upon his retirement from office, has conferred the honor of knighthood upon Dr. B. W. Foster, President of the Council of the British Medical Association, and late Member of Parliament for Chester.

—Dr. Wm. C. Dabney, of Charlottesville, Va., has been elected to the Chair of Practice of Medicine, Obstetrics, and Medical Jurisprudence, in the Medical Department of the University of Virginia.

—The *Boston Post* says that "barbers were originally surgeons," and adds, apparently with much feeling, "a great many of them are now."

Items.

—Pasteur is a doctor at last, having been given a degree *honoris causa.*

—In the last five years Billroth has performed operations on the stomach in 32 cases, with 19 fatal results. Out of 15 gastrectomies for cancer, there were 7 recoveries.

—The Kentucky School of Medicine had the misfortune to lose by fire, on June 10th, its entire premises and outfit. It has already secured a new and commodious building, however.

—A correspondent of the *New York Medical Record* says that in Germany the operation for gastrotomy is so common that few care to witness even Billroth's operations for gastrotomy.

—Dr. R. P. Howard having resigned the position of Vice-President of the International Medical Congress, to be held in Washington next year, Dr. J. A. Grant, of Ottawa, has been appointed to the same office by the Executive Committee.

—She was a sweet girl graduate of a female seminary. She had just been married and was preparing to keep house. Some one recommended her to buy some spring mattresses. "Yes," said she, sweetly, "if they are in season, we'd better have some."

—In one of President Cleveland's vetoes he calls attention to the fact that the wound for which a man asks compensation from the government was received while he was engaged in a private pillaging expedition, and was hunted down by the Home Guards.

—"You have large imagination, you ought to write poetry," said a phrenologist to a man whose head he was examining. "I do write poetry," replied the individual, "and the bump of which you are now feeling was caused by a blow from an editor to whom I offered a poem. Please don't bear on so hard."

—"My dear," said a frightened husband in the middle of the night, shaking his wife, "where did you put that bottle of strychnine?" "On the shelf next to the peppermint." "Oh. Lord!" he groaned, "I've swallowed it." "Well, for goodness sake," whispered his wife, "keep quiet, or you'll wake the baby."

—M. Boher, the inspector of lighting in Dresden, has found that the belts even of ordinary steam engines often develop electricity enough to illuminate Geissler tubes and to perform all the ordinary experiments for which electrical machines are used. He thinks that many of the explosions in flouring mills may have been produced by such electricity.

—The habit of some druggists talking to customers while compounding a prescription should be condemned. The habit of leaving a prescription partially prepared to wait on customers is equally reprehensible. Mistakes in putting up prescriptions occur oftener from haste, and trying to do two things at once, than from incompetency.

—During the cholera epidemic in Nashville, Tenn., the late Dr. Bowling attended an old blind negro, who eked out an existence by playing the flute at the street corners. He recovered, and with a heart overflowing with gratitude he took his flute and sat under the doctor's bed-room window and played it the whole night long. Of all the large fees he ever received, the doctor said this was the largest.

"I want some preserves on my bread," whined a boy to his mother. "Johnny," coaxed the mother, "that nice butter and sugar is the thing for little boys." "Wow, wow," he howled, "I won't have it. 'Taint nothing but glucose and oleomargarine, and it's pizen. Gimme preserves if you don't want your little boy to die." He got the preserves.

—A hypercritical medical man found fault with Mary Anderson because of her assuming the stiffness of a corpse immediately on being killed in one of her plays, holding that cadaveric rigidity does not set in until five or six hours after death. The fair actress naïvely inquired whether it would not be a very severe strain on the patience of the audience to oblige it to wait for six hours until she became stiff after the fashion of nature.

—The following occurred in a chemist's shop in the neighborhood of Liverpool. The wife of one of the merchant princes of that city entered and said: "Oh, Mr. R., are not Epsom salts sold at 2 oz. for 1½d.?" On receiving a reply in the affirmative, madame continued with a sweet smile, "Oh! then I am entitled to an ounce for a halfpenny, as my daughter got an ounce yesterday, and paid a penny for it." And she placed one halfpenny sterling on the counter, as she took a seat and spread her silk robe around.

QUERIES AND REPLIES.

LANOLIN AS A VEHICLE FOR COCAINE.

EDS. MED. AND SURG. REPORTER—

Have any trials been reported of the use of lanolin as a vehicle for cocaine, and with what success?

Cotton Gin, Texas. H. W. MOORE, M. D.